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B I O L O G I A
CENTRALI-AMERICANA.

I N S E C T A.

COLEOPTERA. Vol. I. PART 1.

BY

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INTRODUCTION.

THE present volume, the first of the Coleoptera of the 'Biologia Centrali-Americana,' completes the first two families—Cicindelidæ and Carabidæ—of this great order of insects. Thanks chiefly to the four years' researches of Mr. Champion in Guatemala and the State of Panama; the collections formed by M. Sallé and Herr Höge, supplemented by M. Boucard, M. Flohr, and others, in Mexico; the labours of Mr. Belt in Nicaragua, and of Mr. Rogers and Van Patten in Costa Rica, material has been furnished to enable us to present an approximately complete fauna of the region embraced by our work in these two important families. Some parts of the region undoubtedly have not yet been sufficiently explored, and many additional species may be expected, as indeed is the case with other much better known parts of the world of similar extent; but enough is perhaps known to enable us to form some idea of the relations of the fauna in this department to those of other parts of America and other tropical countries. The few remarks which it seems necessary here to make on this subject must, however, be of a very general nature, a complete review being impossible from the circumstance that the Coleopterous fauna of no other tropical area of similar extent, at least in respect of the two families in question, has ever yet been worked out.

The number of the species of the two families recorded in this volume is 1086, belonging to 154 genera. This is less than a tenth of the total number at present described from the whole world, which cannot be much less than 12,000. It is larger, however, than the apparent poverty of tropical regions in Carabidæ would have led us to expect. The tolerably well-worked valley of the Amazons, although rich in species of genera confined to alluvial plains, and in arboreal forms, contains only 576 species belonging to 124 genera; and the fauna of such tropical regions as the Malay archipelago is evidently still poorer. On the other hand the European fauna contains 1750 species belonging to 114 genera (Stein's Cat. 1877), and temperate North America 1211 species belonging to about 130 genera, a total which has been largely increased

by recent discoveries. The reason of the comparative paucity of Carabidæ in the Tropics has been supposed, apparently on good grounds, to be that their place, as predaceous terrestrial insects, is to a great extent occupied by the ubiquitous ants. The undoubted fact that purely epigæous Carabidæ, except marsh species, are scarce in the Tropics, especially near the Equator and in the low-lands, and that arboreal or climbing forms alone are numerous and varied, affords support to the hypothesis.

The essentially Neotropical character of the Central-American fauna is generally admitted, and is strikingly confirmed by the Cicindelidæ and Carabidæ, no fewer than 62 out of the 154 genera being purely tropical American forms, besides 31 others which are chiefly Neotropical, although extending a smaller or greater distance into the temperate zone north or south, chiefly north. A further series of 15 genera belonging to the Tropics of both hemispheres ought also to be included, as they appear to have spread north from the Neotropical zone; thus making a total of 108 tropical genera in the fauna. This leading feature may be considered therefore well established; but with regard to the northern limits of the fauna, and especially the extent to which Nearctic and North-temperate forms have penetrated the region from north to south, these are points not yet settled. Wallace, in his 'Geographical Distribution of Animals' (vol. i. p. 79, and Map, vol. ii. p. 115), included, or seemed inclined to include, the whole of the central highlands of Mexico and Guatemala in the Nearctic province, which must mean that North-temperate American forms are there in the majority. Our two families of Coleoptera do not support this conclusion. It is true that a considerable number of northern genera occur in Central America, and not in the tropical region further south; but the purely Nearctic forms are comparatively very few, and at least in the middle zones of altitude (the "tierras templadas") are far out-numbered by tropical genera. The total number of northern genera in the fauna is 26, of which only 10 are purely Nearctic, 16 being North-temperate. 22 out of the 26 do not pass south of Guatemala, and 15 not south of Mexico, the remaining 4 extending to Nicaragua, Costa Rica, or Panama. Of Neotropical genera (excluding such as pass into temperate North America) Mexico possesses 37. A few genera, three in number, viz. *Pelecium*, *Trichopselaphus*, and *Euchroa*, belonging to Mexico, occur elsewhere only in the hilly regions of South Brazil. If we analyze the species the result is still more conclusive as to the distinctness of the Mexico-Guatemalan fauna from that of the Nearctic province, the number common to the two regions being exceedingly restricted.

The northern limit of the Central-American fauna appears to be—on the central highlands if not also on the maritime lowlands east and west—a little south of the political frontier of Mexico. This is indicated pretty clearly by two collections acquired for

the purposes of this work, one made by Forrer near the north-western frontier, and the other by Morrison at a locality sixteen miles south of the Arizona border-line; both were remarkable for the predominance of purely North-American species, very few of which were contained in other collections made by Forrer further south, near Ciudad in Durango, and Hepburn in Coahuila, and were still more strikingly dissimilar from collections made in Central Mexico. We know, however, very little at present of the Coleoptera of Northern Mexico.

One more question with regard to the relations of the fauna may be, in conclusion, briefly touched upon. Does the Central-American fauna constitute one homogeneous province or is it divisible into two subprovinces, as Mr. Salvin has shown to be probably the case with regard to the birds, many genera of which are represented by distinct species on each side of a line which he is inclined to place north of the Nicaragua lakes and their outfall the Rio San Juan? The distribution of the Coleopterous families treated of in this volume would seem to justify this subdivision. I have just now stated that only 4 out of the 26 northern genera pass to the south of Guatemala; the tropical genera of the fauna are not similarly limited in range, for out of the 108 genera included in this category only about 30 are not spread over both the great divisions of the region; but if we analyze the species, taking as good cases some of the largest genera, the difference between north and south is strongly marked. Thus out of 145 species of *Colpodes*, 101 are peculiar to Mexico and Guatemala, and 32 to the States further south, 12 only being common to the two subfaunas. In another genus, relatively equally well represented in the fauna, viz. *Cicindela*, represented by 62 species, 47 do not range further south than Guatemala, 7 only are peculiar to the southern section, and 9 are common to both subfaunas. Neither of these genera is exclusively Neotropical or even tropical, and they differ remarkably in the range of their species outside Central America, for whilst none of the Central-American species of *Colpodes* appears to cross the northern boundary of Mexico, no fewer than 12 of the species of *Cicindela* are common to the two regions, being mostly Nearctic species which extend their range to the northern parts of Mexico. *Lebia* is a genus of similar general range to *Cicindela*, and yields similar results; for, of its 86 Central-American species, 54 are restricted to Mexico and Guatemala (4 of them only being also North-American), 20 to the southern subprovince (of which 10 are also South-American), and 12 being common to both subprovinces. *Calosoma*, a genus also of nearly world-wide distribution, has 20 Central-American species, of which no fewer than 17 are peculiar to Mexico alone, and form one of the most distinctive features of its Coleopterous fauna: two only are common to Mexico and North America, and one is a West-Indian species. Another genus may be cited of different character, *i. e.* purely Neotropical, viz. *Agra*: of the 31 Central-

American species, 19 are peculiar to the northern subprovince, and 12 to the southern, not one passing the dividing line. The last genus that need serve for illustration is *Pasimachus*, a Nearctic and Central-American form: of its 17 Central-American species 15 are confined to the northern (of which 2 are North-American), and 2 to the southern subprovince, and none are common to the two. The division of the region into two subprovinces, as indicated by Mr. Salvin, is thus confirmed, as far as the species are concerned, by our two families of Coleoptera; and the analysis proves at the same time that the northern subprovince is not a southern extension of the Nearctic province, even on its highlands, but rather, seeing the large proportion of peculiar species it contains, a remarkably distinct subprovince of the Neotropical fauna.

H. W. B.

December 1884.

LIST OF PLATES.

	Plate.	Fig.	Page.		Plate.	Fig.	Page.
<i>Tetracha angustata</i>	I.	1	3	<i>Pachyteles seriatoporus</i>	II.	22	26
<i>Pseudoxycheila tarsalis</i>	I.	2	4	— <i>cyanipennis</i>	II.	17	27
<i>Oxycheila polita</i>	I.	3	4	— <i>longicornis</i>	XIII.	7	263
<i>Oxygonia boucardi</i>	I.	25	4	— <i>inflatus</i>	XIII.	8	264
<i>Cicindela viatica</i>	I.	4	5	<i>Physea hirta</i>	II.	4	27
— <i>euthales</i>	XIII.	3	256	<i>Pasimachus mexicanus</i>	II.	13	28
— <i>högei</i>	I.	5	6	— <i>sallæi</i>	II.	15	28
— <i>semicircularis</i>	I.	19	6	— <i>subangulatus</i>	II.	18	29
— <i>chrysippe</i>	XIII.	2	257	— <i>rodriguezi</i>	II.	14	29
— <i>hydrophoba</i>	I.	6	8	— <i>rotundipennis</i>	II.	19	29
— <i>mellyi</i>	I.	7	8	<i>Clivina distigma</i>	II.	24	32
— <i>flohri</i>	I.	10	9	<i>Ardistomis convexa</i>	II.	25	34
— <i>roseiventris</i>	I.	8	9	<i>Aspidoglossa distincta</i>	II.	21	36
— <i>carthagenæ</i>	I.	9	9	<i>Schizogenius tristriatus</i>	II.	23	37
— <i>klugi</i>	I.	11	9	<i>Pelecium aterrimum</i> †	III.	1	39
— <i>flavo-punctata</i>	I.	12	10	<i>Panagæus sallæi</i>	III.	2	41
— <i>ponderosa</i>	I.	18	10	<i>Chlænienius forreri</i>	XIII.	10	266
— <i>pallifera</i>	I.	22	11	— <i>menevillei</i>	III.	3	42
— <i>macrocnema</i>	I.	17	12	— <i>aberrans</i> ‡	III.	4	42
— <i>castissima</i>	XIII.	1	260	— <i>planulatus</i>	XIII.	9	266
— <i>aurora</i> , var.	I.	15	12	— <i>sallæi</i>	III.	5	42
— <i>papillosa</i>	I.	14	13	— <i>ruficauda</i>	III.	7	43
— <i>æneicollis</i>	I.	13	13	— <i>guatemalensis</i>	III.	6	43
— <i>nebulosa</i>	I.	16	14	— <i>planipennis</i>	III.	8	44
— <i>viridisticta</i>	I.	20	14	— <i>obscuripennis</i>	III.	9	45
<i>Odontocheila leptalis</i>	I.	23	15	<i>Stenous tibialis</i>	III.	10	46
— <i>exilis</i>	XIII.	4	260	<i>Stenocrepis chalcas</i>	III.	12	47
— <i>salvini</i>	I.	24	16	<i>Anatrichis piceus</i>	III.	11	47
<i>Ctenostoma maculicorne</i>	I.	21	18	<i>Anisotarsus cyanippus</i>	III.	13	51
<i>Omophron oblongiusculus</i>	II.	1	19	<i>Anisodactylus rotundangulus</i>	III.	14	52
<i>Notiophilus specularis</i>	II.	2	19	<i>Notiobia chiriquensis</i>	XIII.	11	270
<i>Carabus forreri</i>	XIII.	5	261	— <i>cupreola</i>	III.	16	54
<i>Calosoma aurocinctum</i>	II.	10	20	— <i>disparilis</i> ♀	III.	15	56
— <i>angulatum</i>	II.	12	21	<i>Selenophorus pyritosus</i>	III.	18	58
— <i>peregrinator</i>	II.	11	21	— <i>multiporus</i>	XIII.	13	272
— <i>læve</i>	II.	8	22	— <i>tarsalis</i>	III.	23	61
— <i>striatipenne</i>	II.	9	23	— <i>dives</i>	XIII.	12	273
— <i>blaptoïdes</i>	II.	7	23	— <i>splendidus</i>	III.	19	61
— <i>dolens</i>	II.	20	23	<i>Discoderus distortus</i>	III.	21	63
— <i>depressicolle</i>	II.	6	23	<i>Stenomorphus rufipes</i>	III.	22	65
<i>Scaphinotus mexicanus</i> *	XIII.	6	263	<i>Athrostictus sericatus</i>	III.	25	66
<i>Loricera rotundicollis</i>	II.	3	24	<i>Barysomus metallicus</i>	III.	24	67
<i>Pachyteles funcki</i>	II.	5	25	<i>Pelmatellus nitescens</i>	III.	17	68
— <i>verticalis</i>	II.	16	25	<i>Polpochila capitata</i>	III.	20	74

* *Cychrus mexicanus* on the Plate.

† *Pelecium nitidum* on the Plate.

‡ *Chlænienius martinezi* on the Plate.

	Plate.	Fig.	Page.		Plate.	Fig.	Page.
<i>Curtonotus putzeysi</i>	IV.	1	76	<i>Onypterygia quadrispinosa</i>	V.	24	130
<i>Celia tenebrionella</i>	IV.	2	78	— <i>longispinis</i>	V.	25	132
<i>Amara azteca</i>	IV.	3	79	<i>Diploharpus perpolitus</i>	VI.	1	134
<i>Evarthrus constrictus</i>	IV.	4	80	<i>Mizotrechus novemstriatus</i>	VI.	2	134
<i>Percolaus championi</i>	IV.	5	80	<i>Perigona lævigata</i>	VI.	4	135
<i>Allotriopus serratipes</i>	IV.	7	81	<i>Trechus coarctatus</i>	VI.	3	136
<i>Hypherpes brachypterus</i>	IV.	8	81	<i>Tachyta cucujoïdes</i>	VI.	7	138
— <i>longissimus</i>	IV.	6	81	<i>Tachys diploharpinus</i>	VI.	11	138
<i>Platysma tropicalis</i>	IV.	9	83	— <i>pericallis</i>	VI.	10	141
<i>Ithytolus anomalus</i>	XIII.	15	278	<i>Mioptachys trechoïdes</i>	VI.	6	144
<i>Euchroa dimidiata</i>	IV.	11	85	<i>Anillus integripennis</i>	VI.	5	145
— <i>nitidipennis</i>	IV.	10	85	<i>Pericompsus longulus</i>	VI.	9	146
<i>Abaris degenera</i>	IV.	12	86	— <i>histrionellus</i>	XIII.	20	290
<i>Loxandrus tetrastigma</i>	IV.	13	87	<i>Xystosomus belti</i>	VI.	8	147
— <i>sculptilis</i>	XIII.	14	278	<i>Bembidium sphæroderum</i>	VI.	12	147
<i>Adrimus olivaceus</i>	IV.	14	87	— <i>mexicanum</i>	VI.	13	148
<i>Stolonis intercepta</i>	IV.	15	88	<i>Lachnophorus humeralis</i>	VI.	14	153
<i>Morio lafertei</i>	IV.	16	89	— <i>semirufus</i>	VI.	16	154
<i>Moriosomus sylvestris</i>	IV.	19	89	— <i>sculptifrons</i>	VI.	17	155
<i>Catapiesis mexicana</i>	IV.	17	90	<i>Ega sallæi</i>	VI.	15	157
<i>Cratocerus sulcatus</i>	IV.	18	91	<i>Leptotrachelus puncticollis</i>	VI.	18	159
<i>Calathus ovipennis</i>	IV.	20	91	<i>Casnonia marginestriata</i>	VI.	19	161
<i>Platynus montezumæ</i>	IV.	24	92	— <i>tubulifera</i>	VI.	25	162
— <i>leptodes</i> *	IV.	25	92	— <i>lineolata</i>	XIII.	23	294
<i>Anchomenus scutifer</i>	IV.	22	94	— <i>subdistincta</i> , var. †	VI.	20	161
— <i>decempunctatus</i>	IV.	23	96	<i>Calophæna cruciata</i>	VI.	22	163
<i>Elliptoleus flavipes</i>	IV.	21	97	— <i>bicinota</i> , var. ‡	VI.	21	163
<i>Glyptolenus rugicollis</i>	V.	1	98	<i>Galerita nigra</i> , var.	VI.	23	165
— <i>latitarsis</i>	XIII.	19	282	— <i>forreri</i>	VII.	2	165
<i>Cyrtolaus spinicauda</i>	V.	2	100	<i>Diaphorus högei</i>	VI.	24	166
<i>Colpodes stricticollis</i>	V.	3	102	— <i>elegans</i>	XIII.	21	295
— <i>pterostichoïdes</i>	V.	4	102	<i>Ancistroglossus dimidiaticornis</i> ..	VII.	1	167
— <i>minimus</i>	XIII.	17	283	<i>Helluomorpha longicollis</i>	VII.	3	167
— <i>eudemus</i>	XIII.	16	284	<i>Pheropsophus biplagiatus</i>	VII.	5	167
— <i>gratus</i>	V.	8	103	<i>Brachinus sallæi</i>	VII.	6	171
— <i>procephalus</i>	V.	6	106	— <i>cinctipennis</i>	VII.	4	171
— <i>championi</i>	V.	10	107	<i>Tetragonoderus pœcilus</i>	VII.	7	172
— <i>incultus</i>	V.	5	108	<i>Nemotarsus rhombifer</i>	VII.	8	173
— <i>evanescens</i>	V.	7	108	<i>Stenognathus quadricollis</i>	VII.	9	175
— <i>forreri</i>	V.	9	109	<i>Ochropisus caudalis</i>	VII.	10	176
— <i>lyrophorus</i>	V.	13	110	<i>Phlœoxena megalops</i>	VII.	11	177
— <i>chiriquinus</i>	V.	11	111	— <i>högei</i>	VII.	12	178
— <i>aphædrus</i>	V.	12	112	<i>Catascopus guatemalensis</i> §	VII.	13	178
— <i>agilis</i>	V.	14	113	— <i>angulicollis</i>	VII.	14	179
— <i>melanocnemis</i>	V.	19	116	<i>Coptodera elongata</i>	VII.	15	180
— <i>spinifer</i>	V.	15	116	— <i>flavodisca</i>	VII.	16	182
— <i>lamprotus</i>	V.	18	118	— <i>pœcila</i>	VII.	18	183
— <i>femoralis</i>	V.	16	119	— <i>cupreotincta</i>	VII.	17	183
— <i>lactipes</i>	V.	17	121	<i>Stenoglossa lineata</i>	VII.	21	184
— <i>rufulus</i>	XIII.	18	286	<i>Lelis insculpta</i>	VII.	22	185
— <i>hemicyclicus</i>	V.	22	127	<i>Eurycoleus belti</i>	VII.	19	186
— <i>dyschirioides</i>	V.	23	128	— <i>ornatus</i>	VII.	20	186
— <i>ignicauda</i>	V.	20	129	<i>Pinacodera atrata</i> 	VIII.	3	187
— <i>lebioïdes</i>	V.	21	129	— <i>chalcea</i>	VII.	23	187

* *Platynus leptomorphus* on the Plate.† *Casnonia transparens* on the Plate.‡ *Calophæna ligata* on the Plate.§ *Catascopus guatemalensis* on the Plate.|| *Pinacodera amblygona* on the Plate.

LIST OF PLATES.

ix

	Plate.	Fig.	Page.		Plate.	Fig.	Page.
Pinacodera cribrata	VIII.	1	188	Loxopeza translucens	X.	4	219
Apenes pallidipes	VII.	24	189	— cyane	X.	3	220
— circumcincta	VIII.	4	189	— exarata	X.	5	221
— obscura	VII.	25	189	— eburata	X.	6	221
— peryphoides	VIII.	2	190	Lebia quadricolor	X.	7	222
— calligramma	XIII.	22	297	— brachinoides	X.	8	222
Apristus longulus	VIII.	7	192	— charilla	X.	9	223
Axinopalpis mexicanus	VIII.	6	193	— ignita	X.	10	224
— jucundus	VIII.	2	193	— cœlina	X.	11	224
Dromius guatemalensis	VIII.	5	194	— croceicollis	X.	13	225
Euproctus fenestrellus	VIII.	10	194	— goniessa	X.	12	225
— quadrinus	VIII.	11	195	— fimbriolata	X.	14	226
— ornatellus	VIII.	15	195	— retusa	X.	15	227
— deliciosus	VIII.	13	195	— pœcilura	X.	16	227
— subdeletus	VIII.	9	196	— callizona	X.	17	227
— sigillatus	VIII.	14	196	— charina	X.	18	228
— abjectus	VIII.	12	196	— clio	X.	19	229
Menidius incultus	VIII.	17	197	— anchora	X.	20	229
— circumseptus	VIII.	16	197	— scalpta	X.	21	230
— formosus	VIII.	18	197	— duillia	XI.	1	230
Onota angulicollis	VIII.	19	198	— rhodope	X.	24	231
— fulvella	XIII.	25	297	— rufilia	X.	25	231
Otoglossa marginella	VIII.	24	199	— neanthe	X.	22	231
Micragra ænea	VIII.	22	199	— calliope	X.	23	231
Hyboptera tuberculata	VIII.	23	200	— soror	XI.	2	232
Aspasiola lemoides	VIII.	21	201	— centromaculata	XI.	3	232
Cryptobatis chontalensis	VIII.	20	202	— arietis	XI.	4	232
Philopheuga brachinoides	IX.	1	202	— chelostigma	XI.	5	232
Calleida sericinitens	IX.	3	203	— chlorotica	XI.	6	233
— aurescens	IX.	4	204	— latifascia †	XI.	7	233
— lampra	IX.	2	204	— nigriceps	XI.	8	233
— pulcherrima	IX.	7	204	— xanthopleura	XI.	9	233
— aureola	IX.	6	204	— bivitticollis	XI.	10	233
— tetrapora	IX.	13	205	— chiriquensis	XI.	11	234
— jansoni	IX.	15	206	— biannulata	XI.	13	234
— variolosa	IX.	14	207	— biforis	XI.	12	234
— sumptuosa	IX.	20	207	— tolteca	XI.	14	235
— regina	IX.	16	207	— maya	XI.	15	235
— metallescens	IX.	10	208	— inconstans	XI.	16	235
— onypterygioides	IX.	18	209	— corcula	XI.	17	236
— tropicalis	IX.	5	209	— cordelia	XI.	18	236
— chryseis	IX.	17	209	— zeta	XI.	19	237
— championi	IX.	8	210	— discopicta, var.	XI.	20	237
— semicincta	IX.	9	211	— sinanja	XI.	21	238
— tinctipes	XIII.	24	298	— mirabilis	XI.	22	238
— flohri	IX.	19	211	— melantho	XI.	23	238
— circumcincta	IX.	12	212	— rugatifrons	XI.	24	239
— bella	IX.	11	214	— vicina	XI.	25	239
Gallerucidia championi	IX.	21	216	— calliparis	XII.	1	240
Pentagonica bifasciata	IX.	24	216	— histrionica, var.	XII.	2, 3	240
— gonostigma	IX.	22	216	— hilaris	XII.	6	241
— omostigma*	IX.	23	217	— coptoderina	XII.	4	242
— picticornis	IX.	25	217	— mesostigma	XII.	5	242
Loxopeza högei	X.	1	218	Lia melanocrepis	XII.	10	244
— urania	X.	2	219	— quadrinotata	XII.	7	244

* *Pentagonica homostigma* on the Plate.† *Lebia latifasciata* on the Plate.

LIST OF PLATES.

	Plate.	Fig.	Page.		Plate.	Fig.	Page.
<i>Lia ocelligera</i>	XII.	8	244	<i>Agra semifulva</i>	XII.	18	249
— <i>quadriannulata</i>	XII.	9	244	— <i>multisetosa</i>	XII.	19	250
<i>Agra eurypelma</i>	XII.	11	245	— <i>elaina</i>	XII.	20	250
— <i>castaneipes</i>	XII.	12	246	— <i>chrysopteryx</i>	XII.	22	251
— <i>æneola</i>	XII.	13	246	— <i>purpurea</i>	XII.	21	251
— <i>oblongo-punctata</i>	XII.	14	247	— <i>dimidiata</i>	XII.	23	253
— <i>resplendens</i>	XII.	15	248	— <i>virgata</i>	XII.	24	254
— <i>regularis</i>	XII.	16	248	<i>Pseudomorpha pilatei</i>	XII.	25	255
— <i>fada</i>	XII.	17	248				

BIOLOGIA CENTRALI-AMERICANA.

ZOOLOGIA.

Class INSECTA.

Order COLEOPTERA.

Tribe ADEPHAGA.

Fam. CICINDELIDÆ.

TETRACHA.

Tetracha, Hope, Col. Manual, ii. p. 7.

Forty-five species of this brilliantly metallic-coloured genus of tiger beetles have been described. The majority are Tropical-American, one species occurring in temperate latitudes in the northern part of the continent, and others passing beyond the tropics in the south, though no species is found in Chili, as might be erroneously inferred from the specific name *chilensis* borne by a species found on the Pacific coast of Peru. Next to Tropical America, Australia is the richest in species. In other parts of the world the genus occurs only in a small number of species of large size in Africa and on the borders of the Mediterranean and Caspian, one (*T. euphratica*) extending to the southern littoral of Spain.

1. *Tetracha carolina*.

Cicindela carolina, Linn. Systema Naturæ, ed. 12, i. 2, p. 657.

Megacephala carolina, Dej. Spec. Gén. Col. i. p. 8.

Tetracha carolina, Hope, Col. Manual, ii. p. 7.

Megacephala mexicana, Gray, Griffith's An. Kingd., Ins. i. p. 263, t. 29. f. 1.

Hab. NORTH AMERICA, Atlantic States.—MEXICO, Michoacan, Chiapas, Putla (*Sallé*), Oaxaca (*Höge*); GUATEMALA, Rio Naranjo (*Champion*).

Var. *cyanides*.

Thorax et elytra lateribus late subviolaceo-cæruleis, his postice lævioribus virgulaque flava angustiore angulum suturalem vix attingente.

Hab. MEXICO, Jalapa (*Höge*).

When a long series of Mexican and United States' examples of the type form are
BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, October 1881. bb

compared, no difference of the slightest importance or constancy can be discovered between them; there can therefore be no utility in retaining *mexicana* even as a variety of the North-American species. In all, the colour of the sides of the thorax and elytra is a brilliant brassy green, tending sometimes to bluish, with the pale apical virgule broad, dilated, and rounded at its upper extremity, deeply sinuated on its inner edge, and extending broadly to the suture; and the punctuation of the elytra is obsolete a little beyond the middle, leaving the apical part smooth and almost without traces of punctures or granules.

The var. *cyanides* is remarkable for the rich violet-blue colour of the sides of the thorax and elytra and the much narrowed virgule, which ends in a point generally just before the sutural angle. It appears not to have been met with by M. Sallé, and would almost merit specific distinction if there did not occur specimens somewhat intermediate in other parts of Mexico.

2. *Tetracha chevrolati*.

Tetracha Chevrolatii, Chaud. Bull. Mosc. 1860, iv. p. 334¹.

Hab. MEXICO¹, Merida in Yucatan (*Sallé*).

According to a verbal communication from M. Sallé, this species is met with only in the neighbourhood of Merida, Yucatan. It is a decidedly broader insect than *T. carolina*, with elytra finely and sparsely punctured and granulated towards the apex, and the apical virgule more dilated and rounded at its upper end. The unique example in the Sallé collection, a female, is nearly black above, with the sides narrowly brassy green.

3. *Tetracha sobrina*.

Megacephala sobrina, Dej. Spec. Gén. Col. v. p. 202.

Var. *Megacephala geniculata*, Chevrol. Col. Mex. i. fasc. 2 (1834).

Var. *Tetracha ignea*, Bates, P. Z. S. 1878, p. 587.

Hab. COSTA RICA (*Rogers*); PANAMA, Obispo (*Salvin*), Matachin (*Schunke*); SOUTH AMERICA, Colombia, Venezuela.

Var. *geniculata*. MEXICO, Rio Papaloapan, Tuxtla, Playa Vicente (*Sallé*).

Var. *ignea*. COSTA RICA (*Rogers*); PANAMA, Chiriqui (*Ribbé*).

Distinguished from *T. carolina* and *T. mexicana* by the elytra being punctured and asperate, with imbricated, though scattered, granules to the apex. The var. *geniculata* resembles *T. carolina* the most in form and colours and in the width of the apical virgules. The typical *sobrina* from Colombia and Panama is generally rather narrower in form, and the posterior black triangular spot of the disk of the elytra ascends further towards the base. The var. *ignea* is of a much richer red-copper hue on its dorsal surface, the posterior black spot ascends much further towards the shoulder, and the apical virgule is always much narrower. A variety connecting *ignea* with *sobrina* was met

with by Rogers in Costa Rica. With regard to the black colouring of the apex of the hinder femora, this exists to a far greater extent in the var. *ignea* than in *geniculata*; in the *sobrina* type there is generally little or no trace of it.

4. *Tetracha affinis*.

Megacephala affinis, Dej. Spec. Gén. i. p. 12¹.

Megacephala Lebasii, Dej. loc. cit. v. p. 203².

Megacephala violacea, Reiche, Rev. Zool. 1842, p. 239².

Megacephala impressa, Chevrol. Mag. Zool. 1841, t. 56³.

Hab. MEXICO, Vera Cruz³ (*Sallé*); PANAMA, Chiriqui (*Champion*).—SOUTH AMERICA, Colombia², Venezuela, Cayenne¹.

Belongs to a group in which the thorax is longer (more gradually narrowed behind) and the elytra more dilated behind the middle than in the *carolina* series of species. The elytra in all the examples of *T. affinis* which I have seen are very thickly sculptured, the basal half being covered with punctures running partly into transverse rugæ, and the apical half rather closely and uniformly roughened with imbricated granula.

5. *Tetracha angustata*. (Tab. I. fig. 1.)

Megacephala angustata, Chevrol. Mag. Zool. 1841, t. 55¹.

Tetracha fuliginosa, Bates, Ent. Monthl. Mag. x. 1874, p. 261².

Hab. MEXICO¹, Vera Cruz (*Sallé*); GUATEMALA (*Sallé*); NICARAGUA, Chontales (*Belt*²).

Very similar to *T. affinis*, but effectively distinguished by the much fainter and sparser sculpture of the elytra. The colour of the upper surface is sooty black with an oily lustre, the sides of head, thorax, and elytra being grassy green or bluish green. The apical virgule is of similar form, gradually narrowed behind, with scarcely perceptible sinuation.

6. *Tetracha virginica*.

Cicindela virginica, Linn. Syst. Nat. i. 2, p. 657.

Megacephala virginica, Dej. Spec. Gén. i. p. 10.

Hab. NORTH AMERICA, Eastern States.—MEXICO (*Sallé*).

PSEUDOXYPHEILA.

Pseudoxycheila, Guér. Dict. Pitt. vi. p. 573.

Oxycheila, Dej. Spec. Gén. v. p. 205.

Peculiar to Tropical America, but more restricted than the following genus in its range, occurring only on the Andes and its continuations, at considerable elevations. Five species, feebly differentiated from each other, are known.

1. **Pseudoxycheila tarsalis.** (Tab. I. fig. 2.)

Pseudoxycheila tarsalis, Bates, Ent. Monthl. Mag. v. p. 290 (1869).

Hab. COSTA RICA, Irazu (*Rogers*); PANAMA, Chiriqui (*Champion*).

The tarsi of the hindmost legs in the male have the two basal joints perceptibly thickened, a feature not noticeable in the other species of the genus.

OXYCHEILA.

Oxycheila, Dej. Spec. Gén. i. p. 15.

Also peculiar to Tropical America, ranging from South Brazil to Nicaragua, but occurring only in hilly or mountainous districts. Seventeen species have been described.

1. **Oxycheila polita.** (Tab. I. fig. 3.)

Oxycheila polita, Bates, Ent. Monthl. Mag. viii. p. 264 (1872¹).

Hab. NICARAGUA, Chontales (*Belt*¹); PANAMA (*Boucard*).

OXYGONIA.

Oxygonia, Mannerheim, Bull. Mosc. 1837, ii. p. 17.

Fourteen species of this beautiful genus have been described, all Tropical-American, and chiefly from the Andean regions of Ecuador and Colombia. One species occurs as far south as the province of Rio Janeiro, and one at Panama.

1. **Oxygonia boucardi.** (Tab. I. fig. 25.)

Oxygonia Boucardi, Chevrol. Ann. Soc. Ent. Fr. 1881, Bull. p. 7.

Hab. PANAMA (*Boucard*).

CICINDELA.

Cicindela, Linn. Syst. Nat. i. 2, p. 657; Lacordaire, Gen. Col. i. p. 17.

Of this well-known and cosmopolitan genus nearly 500 species have now been described. The attempts which have been made by various authors to subdivide the host have not been successful, owing to the inconstancy of the structural modifications, at first sight apparently of generic value. The species, however, fall partly into vaguely-defined natural groups, one or two of which, found on the sandy shores of the sea and rivers, are represented by similar species in all the warmer regions of the earth.

1. **Cicindela latesignata.**

Cicindela latesignata, Leconte, Ann. Lyc. Nat. Hist. New York, v. p. 172¹.

Hab. NORTH AMERICA, California¹.—MEXICO, N.W. boundary (*Forrer*).

2. *Cicindela lugens*.

Cicindela lugens, Klug, Jahrb. Ins. p. 34 (1834)¹.

Cicindela carbonaria, Chevr. Col. Mex. ii. no. 128 (1835)².

Var. *Cicindela aterrima*, Klug, Jahrb. Ins. p. 35¹.

Hab. MEXICO¹, Las Vigas² (*Sallé*), Jalapa (*Höge*).

All the Jalapa specimens are of deep black colour, with scarcely any trace of blue tinge on the under surface, and rarely exhibiting more than one humeral and one discoidal pale spot.

3. *Cicindela craveri*.

Cicindela Craverii, Thomson, Rev. et Mag. Zool. 1856, p. 528¹.

Hab. MEXICO¹.

4. *Cicindela luteolineata*.

Cicindela luteolineata, Chevr. Rev. et Mag. Zool. 1856, p. 351¹.

Cicindela flammula, Thoms. Ann. Soc. Ent. Fr. 1856, p. 326, t. 8. f. 5.

Hab. MEXICO¹, Michoacan (*Sallé*), Jalapa (*Höge*).

5. *Cicindela viatica*. (Tab. I. fig. 4.)

Cicindela viatica, Chevr. Col. Mex. ii. no. 180 (1835)¹.

Hab. MEXICO¹, Jalapa, Huanchinango (*Sallé*).

6. *Cicindela smaragdina*.

Cicindela smaragdina, Chevr. Col. Mex. ii. no. 179 (1835)¹.

Hab. MEXICO¹, Las Vigas (*Sallé*, *Höge*).

7. *Cicindela ioessa*.

C. smaragdinae affinis; gracilior, supra viridis unicolor opaca (lateribus paullulum nitidis), subtus pedibusque violaceis; thorace minus transverso, pronoti margine haud piloso; labro (♂) medio valde producto, margine recte truncato obtuse tridentato, (♀) minus producto, dente mediano unico valido; pectore nudo. Variat colore tota violacea.

Long. 4-5 lin. ♂ ♀.

Hab. MEXICO, Huanchinango (*Truqui*, coll. *Sallé*).

The numerous examples in the Sallé collection differ constantly from the description and type specimen of *C. smaragdina*, not only in the colour of the legs, but in the elytra being uniform in colour and wanting the dark velvety clothing of the disk. The form of the thorax is also different, and the labrum much more produced in the middle.

8. *Cicindela högei*. (Tab. I. fig. 5.)

Elongata, parallelogrammica, subdepressa, viridis vel fusco-cuprea, opaca, elytris epipleuris verticalibus politis vittaque submarginali paullo flexuosa alba; corpore subtus cyaneo; episternis cupreis, alutaceis, nudis; femoribus cupreo-auratis, tibiis tarsisque rufis cupreo tinctis; labro magno, albo, antice producto, medio late truncato, dente mediano (♂ et ♀) conspicuo; palpis testaceo-rufis, articulo terminali saturatiore; capite supra late depresso, confluentem strigoso, fronte verticali media tumida; thorace rotundato, postice angustato, supra subtiliter ruguloso; elytris apice rotundatis, sutura ante apicem subhiante, dorso subtilissime striguloso foveis punctiferis nonnullis notato.

Long. $3\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Oaxaca, Juquila (*Höge*).

This beautiful little species agrees with *C. viatica* and allies in the absence of pubescence from the under surface; but it is distinguished from all *Cicindelæ* yet known by the peculiarity of its elytral markings, the lateral margins being polished and the polished portion separated from the opaque disk by a white vitta, commencing at the shoulder and extending to the middle of the apical margin. The vitta recedes from the margin towards the middle, and is there narrowed or subinterrupted in two places.

9. *Cicindela phosphora*.

Cicindela phosphora, Bates, Cistula Entomologica, ii. p. 329 (1878).

Hab. MEXICO (*coll. Bates ex coll. J. Thomson*).

Neither M. Sallé nor Herr Höge appears to have met with this species, a specimen of which was obtained by the late Mr. Edwin Brown from the collection of M. Thomson of Paris. Although resembling *C. högei* in the submarginal vitta of the elytra and the naked under surface of the body, with very short hairs on the femora, it differs entirely in form, being convex and subcylindrical, with much narrower head and less convex eyes. The labrum (in the male) is arcuated in front, with three obtuse teeth on the front margin. The minute sculpture of the elytra is very similar in the two species.

10. *Cicindela semicircularis*. (Tab. I. fig. 19.)

Cicindela semicircularis, Klug, Jahrb. p. 33¹.

Hab. MEXICO¹, Toluca (*Sallé*).

11. *Cicindela catharinæ*.

Cicindela Catharinæ, Chevrolat, Col. Mex. ii. no. 178¹.

Hab. MEXICO¹, Huanchinango, Mexico city (*Sallé, Höge*), Jalapa (*Höge*).

12. *Cicindela clarina*.

Oblongo-subovata, modice convexa, supra viridi-opaca, pectore viridi-aurato, episternis pedibusque cupreis, abdomine rufo; labro (♀) medio arcuato-prominulo, unidentato; palpis maxillaribus totis, labialibus

articulo terminali, viridi-æneis; capite fronte et vertice strigoso; thorace brevi, lateribus rotundatis, vermiculato-rugato; elytris postice late rotundatis, haud profunde indistincte punctatis, maculis albis prima humerali, 2da paullo posteriore versus discum, 3tia majore transverso subobliqua discoidali, 4ta parva discoidali posteriore, 5ta et 6ta marginalibus versus apicem.

Long. 5 lin. ♀.

Hab. MEXICO (*Sallé*).

In form and colours much resembling *C. ismenia* (Gory), but belonging to a different group. The disposition of the elytral spots approaches that of *C. mellyi*; but their form is different, and the apical sutural spot is wanting. The insect connects the group *semicircularis* with the group *hydrophoba*.

13. *Cicindela dysenterica*.

Cicindela dysenterica, Chaud. Cat. Coll. Cicind. p. 29. no. 145.

Gracilis, oblonga subcylindrica, abdomine rufo; supra colore et signaturis variabilissima, opaca, cuprea viridi vel aureo tincta, læte vel obscure viridis, cærulea aut violacea; elytris vitta laterali ab humero usque ultra medium (medio a margine remota et fasciam versus discum emittente) lunulaque apicali albis; interdum vitta interrupta et in maculas humerales marginalesque dissoluta, vel elytris fere immaculatis; labro ♀ arcuatim porrecto unidentato, ♂ minus porrecto plurisinuato; thorace parvo, fere cylindrico, confuse rugato; elytris sparsim punctatis versus basin foveatis; corpore subtus lateribus (femoribusque) sparsim albo-pubescentibus, prothoracis episterno nitido, interdum cupreo.

Long. 3½–5 lin. ♂ ♀.

Hab. MEXICO, Oaxaca (*Boucard*, coll. *Sallé*, *Höge*), Huanchinango (*Truqui*, coll. *Sallé*).

According to the *Sallé* collection, this variable little species is the *C. dysenterica* of Chaudoir's Catalogue. In well-preserved examples the borders of the pronotum are clothed with white laid hairs, like the middle plates of the breast, the coxæ, and the sides of the basal segment of the abdomen.

14. *Cicindela rufiventris*.

Cicindela rufiventris, Dejean, Spec. Gén. Col. i. p. 102 (1825)¹; Chaud. Cat. Coll. Cicind. p. 29. no. 159.

Var. *Cicindela 16-punctata*, Klug, Jahrb. p. 32 (1834)².

Cicindela rubriventris, Chevrolat, Col. Mex. ii. no. 101 (1835)².

Cicindela Sallei, Chevr. loc. cit. no. 126 (1835)².

Hab. MEXICO²: var. *16-punctata*, Guanajuato (*Dugès*, coll. *Sallé*); var. *sallei*, Palo Verde, Vera Cruz (*Sallé*).—WEST INDIES, St. Domingo¹.

M. de Chaudoir, whose synonymy is here followed, and who was the possessor of the type of *C. rufiventris* of Dejean, queries the locality given by this author. I have seen no Mexican example which exactly agrees in the markings of the elytra with Dejean's description; but all the species of this group vary greatly in markings and to a less extent in colour.

15. **Cicindela hydrophoba.** (Tab. I. fig. 6.)

Cicindela hydrophoba, Chevr. Col. Mex. ii. no. 125¹.

Hab. MEXICO, Vera Cruz¹, Tuxtla, Catemaco (*Sallé*), Jalapa (*Höge*).

Var. *signaturis tenuibus*; colore obscuriore fere nigro.

Hab. MEXICO, Yucatan (*Boucard*).

Var. *signaturis dilatatis* (*C. quinque-notata*, Sturm, MSS.).

Hab. MEXICO, Istapan, Santecomapan (*Sallé*); NICARAGUA, Chontales (*Belt*).

Var. *signaturis dilatatis*, lunula apicali interrupta, guttaque marginali fere semper deficiente.

Hab. MEXICO, Cerro de Plumas (*Höge*).

This species is not only inconstant in markings (particularly in the shape and degree of continuity of the median angular fascia) and to less extent in colour in one and the same locality, but tends to the development of distinct local forms in different localities. Comparing together the long series taken by Herr Höge at Jalapa and at Cerro de Plumas, one might be justified in treating the two local forms as good species, were it not for intermediate varieties in other localities which bridge over the difference. One example from Jalapa is destitute of markings, the elytra being of an opaque greenish-black colour. Some of the specimens from Jalapa approach very nearly the var. *sallei* of *C. rufiventris*; and I fail to discover any valid distinction between the two species. In all the varieties the labrum is advanced in a broad curve, with a strong median tooth in the female, and in the male a slight median sinuation. The form of the labrum distinguishes the species well from *C. mellyi*.

16. **Cicindela mellyi.** (Tab. I. fig. 7.)

Cicindela Mellyi, Chaud. Bull. Mosc. 1852, i. p. 19¹.

Cicindela calochroides, Motschulsky, Etudes Entom. 1857 (6^e année), p. 109².

Hab. MEXICO, Oaxaca¹ (*Boucard*, coll. *Sallé*, *Höge*), Juquila (*Boucard*, coll. *Sallé*), Jalapa, Cerro de Plumas (*Höge*); GUATEMALA (*Salvin*), Cubulco, San Gerónimo (*Champion*); NICARAGUA² (*Sallé*), Chontales (*Belt*, *Janson*).

A larger insect than *C. rufiventris* and *C. hydrophoba*. There is no constant difference between the three in their elytral markings; but *C. mellyi* is always recognizable by the short labrum, the coarsely punctured prothoracic episterna, and the brassy-piceous posterior trochanters, the last-mentioned organs in the other species being clear red like the abdomen.

In his description of *C. mellyi* Chaudoir describes the head and thorax as brilliantly metallic. None of the numerous examples from various localities that I have been able to examine answer to this description, although some of them in the *Sallé* collection were named *mellyi* by Chaudoir himself, as I am informed by M. *Sallé*. In all the

head and thorax are obscurely coloured, the brightest being of coppery hue, scarcely shining, with the depressed parts and margins green.

17. **Cicindela hæmorrhagica.**

Cicindela hæmorrhagica, Leconte, Ann. Lyc. N. Y. v. p. 171¹.

Hab. NORTH AMERICA, California¹.—MEXICO, N.W. frontier (*Forrer*).

18. **Cicindela flohri.** (Tab. I. fig. 10.)

Cicindela flohri, Bates, P. Z. S. 1878, p. 588¹.

Hab. MEXICO, near the capital (*Flohr*¹), Guanajuato, Huanchinango (*Sallé*), Jalapa (*Höge*).

19. **Cicindela mexicana.**

Cicindela mexicana, Klug, Jahrb. Ins. p. 31 (1834)¹.

Cicindela decostigma, Chevrolat, Col. Mex. i. fasc. 3 (1834)².

Cicindela belti, Bates, P. Z. S. 1878, p. 588³.

Hab. MEXICO^{1 2}, Vera Cruz (*Sallé*); NICARAGUA, Chontales (*Belt*³).

Var. signaturis dilatatis fasciaque mediana magis transversa.

Hab. MEXICO, Tehuantepec (*Sallé*).

20. **Cicindela roseiventris.** (Tab. I. fig. 8.)

Cicindela roseiventris, Chevrolat, Col. Mex. i. fasc. 2 (1834).

Hab. MEXICO, Vera Cruz, Playa Vicente (*Sallé*); GUATEMALA, San Joaquin (*Champion*).

21. **Cicindela sommeri.**

Cicindela sommeri, Mannerheim, Bull. Mosc. 1837, ii. p. 12.

Cicindela ferrugata, Putzeys, Prémices Entom., Mém. Liège, ii. p. 366 (1846).

Hab. MEXICO, Oaxaca (*Sallé*, *Höge*).

22. **Cicindela carthagena.** (Tab. I. fig. 9.)

Cicindela carthagena, Dej. Spec. Gén. Col. v. p. 229¹.

Hab. GUATEMALA, Champerico (*Champion*); NICARAGUA, Chontales (*Belt*).—SOUTH AMERICA, Colombia¹.

23. **Cicindela klugi.** (Tab. I. fig. 11.)

Cicindela Klugii, Dej. Spec. Gén. Col. v. p. 263¹.

Hab. MEXICO¹ (*Sallé*, *Höge*), near the capital (*Flohr*).

BIOL. CENTR.-AMER., Ccleopt., Vol. I. Pt. 1, October 1881.

24. *Cicindela rectilatera*.

Cicindela rectilatera, Chaud. Bull. Mosc. 1843, iv. p. 693¹.

Cicindela decostigma (nec Chevrol.), Leconte, Revis. Cic. U. S. p. 54 (1856)².

Hab. NORTH AMERICA, Texas².—MEXICO¹.

25. *Cicindela flavopunctata*. (Tab. I. fig. 12.)

Cicindela flavopunctata, Chevrolat, Col. Mex. i. fasc. 2 (1834).

Var. *Cicindela ocellata*, Klug, Jahrb. Ins. p. 33 (1834).

Var. *Cicindela incerta*, Chevrol. Col. Mex. ii. no. 127 (1835).

Var. *Cicindela humeralis*, Chevrol. Mag. Zool. 1841, t. 59.

Hab. MEXICO, Cordova, Tuxtla, Chinantla, Cosamaloapam, Cuernavaca, Puebla, Yolos, Oaxaca (*Sallé*), Vera Cruz, Jalapa, Misantla, Oaxaca (*Höge*), Hacienda de Bleados (*Dr. Palmer*), Merida, Tehuantepec (*Sallé*); HONDURAS (*Sallé*); GUATEMALA, near the city (*Salvin*), Panzos, Chacoj, Cubulco, Dueñas, San Isidro (*Champion*), Coban (*Sallé*); NICARAGUA, Chontales (*Belt*); COSTA RICA, Irazu (*Rogers*).

A common and widely-distributed Central-American species, as yet unrecorded from any region south of Costa Rica or north of Mexico. *C. ocellata* and *C. incerta* are insignificant aberrations, in which the yellow spots are either feeble and encircled by a dark ring, or totally obsolete; they occur with the type form in most localities in Mexico; but *C. humeralis* diverges considerably from the type, being rather larger and having, in well-developed examples, the basal spots united as a humeral lunule, and the two discoidal spots joined to form an oblique fascia, which is sometimes connected on the sides with a white marginal streak as in *C. klugi*. All the varieties seem to be confined to Mexico, where also the largest and more metallic-coloured examples occur; further south the species degenerates in size and is obscurer in colour, with the elytral markings forming widely separated small spots, as in the type.

26. *Cicindela fera*.

Cicindela fera, Chevrolat, Col. Mex. i. fasc. 2 (1834)¹.

Cicindela tenuilineata, Audouin et Brullé, Arch. Mus. i. p. 128 (1838)².

Hab. MEXICO^{1 2}, Itlacotalpan (*Sallé*); GUATEMALA, Teleman (*Champion*).

27. *Cicindela ponderosa*. (Tab. I. fig. 18.)

Cicindela ponderosa, Thomson, Arc. Nat. p. 89.

Cicindela hirticollis (Say), var., Chaud. Cat. Coll. Cic. p. 34. no. 248.

Hab. MEXICO, Vera Cruz (*Sallé*, *Höge*).

Distinguished from the common and widely-distributed *C. hirticollis* of the United States only by its larger size and the broader markings of the elytra.

28. *Cicindela tortuosa*.

Cicindela tortuosa, Dej. Spec. Gén. Col. i. p. 87¹; Duval in Sagra's Hist. de Cuba, Ins. Col. p. 5².

Cicindela serpens, Leconte, Ann. Lyc. N. Y. v. p. 173³.

Cicindela sigmoidea, id. ibid. p. 172⁴.

Cicindela trifasciata, Fabr. Syst. El. i. p. 242?

Hab. NORTH AMERICA¹, Louisiana³, California⁴.—MEXICO, Vera Cruz (*Sallé, Höge*) near the capital (*Dr. Palmer, Flohr*), N.W. frontier (*Forrer*).—WEST INDIES¹, Cuba², Jamaica, St. Thomas.

Chaudoir adds to the synonymy of this species, as varieties, the *C. inca* and *peruviana* of Peru; but these seem to me sufficiently distinct in form and markings to warrant their specific separation. Mexican examples are darker and less metallic than those of California.

29. *Cicindela hamata*.

Cicindela hamata, Audouin et Brullé, Arch. Mus. i. p. 132, t. 8. f. 9 (♂) (1838).

Cicindela cristoforii, Chevrolat, Mag. Zool. 1841, p. 15 (♀).

Cicindela apicalis, Chaudoir, Bull. Mosc. 1843, iv. p. 691 (♀).

Cicindela reichei, Chaudoir, Bull. Mosc. 1843, iv. p. 689, i. p. 115 (1854) (♂).

Hab. MEXICO, Vera Cruz (*Sallé, Höge*).

30. *Cicindela pallifera*. (Tab. I. fig. 22.)

Cicindela pallifera, Chaudoir, Bull. Mosc. 1852, i. p. 17¹.

Hab. MEXICO¹, Progreso in Yucatan (*Sallé, Höge*).

31. *Cicindela gabbi*.

Cicindela Gabbii, Horn, Proc. Ac. Phil. 1866, p. 395¹.

Hab. NORTH AMERICA, California¹.—MEXICO, N.W. frontier (*Forrer*).

32. *Cicindela curvata*.

Cicindela curvata, Chevrolat, Col. Mex. i. fasc. 2 (1834).

Hab. MEXICO, Vera Cruz (*Sallé, Höge*).

33. *Cicindela graphiptera*.

Cicindela graphiptera, Dej. Spec. Gén. Col. v. p. 257¹.

Var. *Habroscelis obliquata*, Motschulsky, Etud. Ent. 1857, p. 108².

Cicindela obliquans, Chaudoir, Cat. Coll. Cic. p. 33. no. 232.

Hab. NICARAGUA, Chontales (*Belt*); COSTA RICA².—SOUTH AMERICA, Colombia¹.

All the specimens taken by Belt have slender elytral markings, and show no tendency to the diffusion of the pale colouring over the elytral surface, as is seen in Colombian examples; this, however, is a common aberration in *Cicindelæ* of this and other groups.

34. ***Cicindela chlorocephala*.**

Cicindela chlorocephala, Chevrolat, Col. Mex. i. fasc. 2 (1834).

Hab. MEXICO, Vera Cruz (*Sallé*).

35. ***Cicindela macrocnema*.** (Tab. I. fig. 17.)

Cicindela macrocnema, Chaudoir, Bull. Mosc. 1852, i. p. 15¹.

Hab. MEXICO, Mazatlan (*Forrer, Sallé*), Acapulco¹; GUATEMALA, Champerico, Paraiso (*Champion*); NICARAGUA, San Juan del Sur (*Salvin*).

36. ***Cicindela panamensis*.**

Cicindela panamensis, Boucard, Bull. Soc. Zool. France, 1881, p. 3¹.

Var. *signaturis maxime dilatatis*.

Cicindela chevrolatii, Boucard, Bull. Soc. Zool. France, 1881, p. 4¹.

Hab. PANAMA (*Boucard*¹, *Champion*).

Both forms of this insect, described by Boucard as distinct species, occur together; but the white variety appears less abundant than the type. The species differs from *C. macrocnema* constantly in the much more prolonged and tapering apex and the angular dilatation of the middle of the elytra. The white lateral border is in many examples twice interrupted, as it generally is in Guatemalan and Nicaraguan specimens of *C. macrocnema*; in more northerly localities the latter has always a continuous white border.

37. ***Cicindela auraria*.**

Cicindela auraria, Klug, Jahrb. Ins. p. 27 (1834)¹.

Cicindela palliata, Putzeys, Prém. Ent., Mém. Liège, ii. p. 366 (1846)².

Hab. PANAMA, Matachin (*Schunke*).—SOUTH AMERICA, Colombia¹, Venezuela².

38. ***Cicindela severa*.**

Cicindela severa, Laferté, Rev. Zool. 1841, p. 41¹; Leconte, Revis. Cic. U. S. p. 58².

Hab. NORTH AMERICA, Texas¹.—MEXICO, Tampico².

39. ***Cicindela togata*.**

Cicindela togata, Laferté, Rev. Zool. 1841, p. 40¹; Leconte, Revis. Cic. U. S. p. 58 (1856)².

Hab. NORTH AMERICA, Texas¹.—MEXICO, Tampico².

40. ***Cicindela aurora*.**

Cicindela aurora, Thomson, Arc. Nat. p. 90.

Hab. MEXICO, Panistlahuca, Juquila (*Sallé*).

Var. Capite thoraceque minus politis, hoc plagis cupreis majoribus. (Tab. I. fig. 15.)

Hab. MEXICO, Cerro de Plumas (*Höge*).

The variety was taken in considerable numbers by Höge, and is very constant.

41. *Cicindela radians*.

Cicindela radians, Chevrolat, Mag. Zool. 1841, t. 57.

Hab. MEXICO, Toxpam, Cordova (*Sallé*), Jalapa (*Höge*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, Zapote (*Champion*).

42. *Cicindela vasseleti*.

Cicindela Vasseletii, Chevrolat, Col. Mex. i. fasc. 2 (1834); Audouin et Brullé, Arch. Mus. i. p. 138, t. 9. f. 7.

Hab. MEXICO, Playa Vicente, Cosamaloapam (*Sallé*); GUATEMALA, Teleman, San Gerónimo (*Champion*).

43. *Cicindela papillosa*. (Tab. I. fig. 14.)

Cicindela papillosa, Chaudoir, Bull. Mosc. 1854, i. p. 123.

Hab. MEXICO, Oaxaca, Tuxtla, Catemarco (*Sallé*), Coatepec, Jalapa (*Höge*); GUATEMALA, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Belt*).

44. *Cicindela chontalensis*.

Cicindela chontalensis, Bates, Ent. Monthl. Mag. x. p. 264 (1874)¹.

Cicindela Walkeriana, Thomson, Ann. Soc. Ent. Fr. 1856, p. 331?²

Hab. NICARAGUA, Chontales (*Belt*¹); COSTA RICA²?

This may possibly be the *C. walkeriana* of Thomson, being black, with sometimes an oblique discoidal streak and subapical spot white; but Thomson compares his insect with *C. marginalis*, to which *C. chontalensis* bears no resemblance, and describes the labrum as having two teeth, which is also inapplicable to our species.

45. *Cicindela cyaniventris*.

Cicindela cyaniventris, Chevrolat, Col. Mex. i. fasc. 2 (1834)¹.

Cicindela corvina, Leconte, Revis. Cic. U. S. p. 53 (1856)².

Hab. MEXICO¹, Northern Mexico², Toxpam, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA, Zapote, Panzos, Teleman (*Champion*).

46. *Cicindela æneicollis*. (Tab. I. fig. 13.)

Cicindela æneicollis, Chaud. Cat. Coll. Cic. p. 29. no. 149 (non descript.).

C. cyaniventri proxime affinis, minor et multo gracilior, sericea subopaca, viridi-ænea vel fusco-cuprea, capite et thorace lætius coloratis; capite angustiore, prope oculos striato, postice et media fronte granulato; labro albo, antice producto, ♂ apice truncato unidentato, utrinque fortiter sinuato; thorace fere cylindrico, subtilissime alutaceo; elytris oblongis, apice (♂ ♀) singulatim rotundatis, sutura spinosa, dorso vage

punctato foveisque viridibus longitudinaliter seriatis, guttis albis (sæpe obsoletis) quatuor, prima post humerum, secunda et tertia discoidalibus (fasciam brevem obliquam interruptam simulantibus) quartaque exteriore versus apicem; corpore subtus læte violaceo, prosterni et mesosterni episternis splendide cupreis; femoribus viridi-æneis.

Long. $4\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Panistlahuca, Tehuantepec (*Sallé*), Oaxaca (*Höge*).

Var. longior, obscure purpureo-fusca, capitis thoracisque lateribus cupreis et viridibus, elytris sæpius immaculatis. Long. 5 lin. ♂ ♀.

Hab. MEXICO, Cerro de Plumas (*Höge*).

The variety approaches in colours *C. cyaniventris*, but it has the narrower head and thorax of *C. æneicollis*.

47. *Cicindela nebulosa*. (Tab. I. fig. 16.)

Cicindela nebulosa, Bates, Ent. Monthl. Mag. x. p. 263 (1874)¹.

Hab. NICARAGUA, Chontales (*Belt*¹, *Janson*).

Chaudoir labelled a specimen of this species in the Sallé collection *C. paludosa*, Dej. Cat., which is said to be *C. guerini*, Gory, a species from Cayenne. It does not, however, agree with Gory's description.

48. *Cicindela argentata*.

Cicindela argentata, Fabr. Syst. i. p. 242; Dej. Sp. Gén. Col. i. p. 147¹.

Cicindela misella, Chaud. Bull. Mosc. 1854, i. p. 121².

Hab. PANAMA (*MacLeannan*).—SOUTH AMERICA, Colombia² and Cayenne¹ to South Brazil.

49. *Cicindela hemichrysea*.

Cicindela hemichrysea, Chevrolat, Col. Mex. ii. no. 129 (1835)¹.

Cicindela inspersa, id. ibid. no. 130².

Cicindela cyanosparsa, Chaudoir, Bull. Mosc. 1852, p. 23³.

Hab. MEXICO^{1 2}, Tuxpan, Cordova, Tuxtla, Playa Vicente (*Sallé*), Jalapa (*Höge*), Yucatan³; HONDURAS (*Sallé*); GUATEMALA, Zapote, Panzos, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Belt*); PANAMA, Volcan de Chiriqui (*Champion*).

50. *Cicindela viridisticta*. (Tab. I. fig. 20.)

Cicindela viridisticta, Chaudoir, Cat. Coll. Cic. p. 23. no. 29 (non descript.).

C. hemichryseæ similis, at differt elytris dorso punctis et foveis magnis haud profundis cribratis margineque laterali medio late impunctato polito; subcylindrica, opaca, fusco-cuprea, impressionibus viridibus vel lætius cupreis; capite angusto, collo crasso, subtiliter strigoso et vermiculato-rugoso; labro albo, angusto, antice producto, margine truncato tridentato; thorace cylindrico, basi paullo angustiore, supra subtiliter strigoso; elytris oblongis, apice rotundatis, sutura simplici, macula mediana submarginali lunulaque apicali angustissima albis; corpore subtus chalybeo, polito, glabro; pedibus aurato-viridibus.

Long. 3 lin. ♂ ♀.

Hab. MEXICO, Yolotepec, Tehuantepec (*Sallé*), Villa Alta (*Höge*).

51. *Cicindela unicolor*.

Cicindela unicolor (Dej.), Chevrolat, Col. Mex. ii. no. 177 (1835)¹.

Hab. MEXICO, near the capital (*Sallé*)¹.

A doubtful species; not in the *Sallé* collection. *C. unicolor*, Dej., is a well-known variety of *C. scutellaris*, Say, common in the Atlantic States of North America.

ODONTOCHEILA.

Odontocheila, Castelnau, Silberm. Rev. Ent. ii. p. 34 (1834); Lacordaire, Gen. Col. i. p. 22; Chaudoir, Bull. Mosc. 1860, iv. p. 269.

Cicindela (1^{re} div.), Dej. Spec. Gén. Col. i. p. 21.

About seventy species of this genus have been described, all Tropical-American, with the exception of a species from Java and Sumatra and another from the Philippines, which agree in form and markings as well as structure with the Tropical-American forms. Baron Chaudoir, however, united the *Euryodæ* of Tropical Africa and India with the genus, from which they appear to differ sufficiently in form of body, style of marking, and some minor points of structure to be regarded as generically distinct. *Odontocheila* differs from the true *Cicindelæ* by no one constant structural character, but by the combination of three characters, not found in conjunction in any species of the typical genus; these are:—1, the greatly elongated and toothed labrum; 2, the existence of a long spine-like bristle at the end of the palpiform lobe of the maxillæ; and 3, the grooved tarsi. Of these the second appears the most constant differential character, the terminal bristle being either absent or present only as a short slender hair in *Cicindela*; grooved tarsi are present in many species of the section of *Cicindela* named *Thopentica* by some authors; and the long-spined labrum is a chief feature of the section *Calochroa*. I therefore propose to revert to the extension of the genus indicated by Lacordaire, and to include in *Odontocheila* all those *Cicindelæ* of similar elongate form of body and projected labrum which exhibit this peculiarity of armature of the palpiform lobe, although destitute of tarsal grooves; this will bring within the genus such species as *C. ventralis*, Dej., *C. punctum*, Klug, and the following new species from Central America.

♂ 1. Tarsis simplicibus.

1. *Odontocheila leptalis*. (Tab. I. fig. 23.)

Gracillima, viridi-vel cupreo-ænea, sublævis; capite post oculos valde angustato, oculis maxime extantibus, vertice late concavo, subtiliter longitudinaliter, collo transversim, strigosis; labro flavo, basi fusco, elongato, longitudinaliter convexo, margine antico (♀) valde producto, dente mediano valido, alteris utrinque tribus parvis, obtusis, (♂) margine haud producto, edentato; thorace elongato cylindrico, antice et postice argute constricto, dorso subtiliter sparsim strigoso; elytris subcylindricis, apice conjunctim rotundatis, dorso subsparsim, antice magis, postice minus profunde punctatis; corpore subtus glabro, impunctato; antennis, palpis pedibusque (gracillimis) fulvis.

Long. 3½–4 lin. ♂ ♀.

Hab. MEXICO, Cerro de Plumas (*Höge*), Juquila (*Boucard, coll. Sallé*).

2. *Odontocheila championi*.

Gracilis, subfusco-ænea, crebre sculpturata; capite magno, postice valde elongato et angustato, oculis maxime extantibus, vertice late concavo, omnino subtiliter striguloso; labro flavo, basi fusco-æneo, elongato, longitudinaliter convexo, margine antico ♂ ♀ medio tridentato, dentibus alteris utrinque lateralibus duobus obtusis; thorace angusto, cylindrico, crebre striguloso; elytris apice conjunctim rotundatis, dorso valde inæqualibus crebre et fortiter punctatis, nitidis; corpore subtus viridi-cyaneis, coxis albo-hirtis; palpis, antennis (apice obscurioribus) pedibusque (gracilibus) testaceo-rufis.

Long. $3\frac{1}{2}$ lin. ♂ ♀.

Hab. GUATEMALA, Zapote (*Champion*).

§ 2. Tarsis sulcatis.

3. *Odontocheila mexicana*.

Odontocheila mexicana, Castelnau, Etudes Ent. p. 38 (1835).

Odontocheila nietii, Guérin, Rev. Zool. 1844, p. 253.

Hab. MEXICO, Cordova, Toxpam (*Sallé*).

4. *Odontocheila quadrina*.

Cicindela quadrina, Chevrolat, Col. Mex. ii. no. 176 (1835)¹.

Hab. MEXICO, Tutepec¹, Chinantla, Tuxtla (*Sallé*), Playa Vicente (*Höge*); BRITISH HONDURAS, Belize (*Blancaneaux*).

5. *Odontocheila iodopleura*.

Odontocheila iodopleura, Bates, Ent. Month. Mag. viii. (1872) p. 285¹.

Hab. NICARAGUA, Chontales (*Belt*¹).

6. *Odontocheila cinctula*.

O. iodopleuræ proxime affinis, paullo gracilior elytrisque angustius aureo et violaceo marginatis. Gracilis, supra rubro-cuprea subopaca, palpis (articulis apicalibus nigris exceptis) femoribusque (medio infuscatis) flavo-testaceis, trochanteribus posticis nigris, tibiis tarsisque piceis; capite juxta oculos argute et recte, medio et postice granulatim ac confuse striguloso; labro nigro, antice et lateribus flavo-marginato, 7-dentato, dente mediano ♂ fere obsoleto, ♀ maxime elongato; thorace quam in *O. iodopleura* et *mexicana* longiore magisque cylindrico, crebre granulatim ruguloso; elytris crebre ruguloso-punctatis, utrinque maculis duabus marginalibus albis, dorso rubro-cupreis, lateribus vitta angusta violacea anguste viridi et aureo marginata; corpore subtus nigro-cyaneo, pectore medio viridi-æneo.

Long. 5-5½ lin. ♂ ♀.

Hab. GUATEMALA, Zapote (*Champion*).

7. *Odontocheila salvini*. (Tab. I. fig. 24.)

Odontocheila Salvini, Bates, Ent. Month. Mag. x. p. 267.

Hab. PANAMA, Obispo (*Salvin*).

8. *Odontocheila nicaraguensis*.

Odontocheila nicaraguensis, Bates, Ent. Month. Mag. x. p. 269.

Hab. NICARAGUA, Chontales (*Belt*).

9. *Odontocheila chiriquina*.

O. nicaraguensi quam maxime affinis, differt tantum labri marginibus et dentibus rufis, thorace graciliore multo subtilius granulato haud striguloso, elytris dorso magis infuscatis femoribusque posticis omnino chalybeo-nigris. Elongata, fusco-cuprea, capite rubro-cupreo et aurato, vitta angusta marginali ab oculo usque ad elytrorum apices aurato-viridi extus violacea; thorace anguste cylindrico, dorso opaco crebre vermiculato-striguloso subgranulato; elytris gutta alba marginali; corpore subtus pedibusque chalybeis nitidis, femoribus quatuor anticis versus basin rufo-piceis.

Long. 7-7½ lin. ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

This and *O. nicaraguensis* belong to the *cayennensis* type of *Odontocheila*, which is quite remarkable for its tendency to develop well-defined local races in comparatively small geographical areas throughout the northern region of South America. Eight or ten such races, subspecies, or species have already been described.

IRESIA.

Iresia, Dejean, Sp. Gén. Col. v. p. 206.

Fourteen species of this genus have been described, ranging from South Brazil to Mexico, though apparently rare everywhere. The genus is allied to *Therates* of the Malayan region in the Old World, with which it has in common the bisulcate forehead and large vaulted labrum. The species are found on the trunks of forest trees, around which they run nimbly in search of prey.

1. *Iresia boucardi*.

Iresia boucardii, Chevrolat, Rev. et Mag. Zool. 1856, p. 351; Lacordaire, Gen. Col. Atlas, t. i. f. 3.

Hab. MEXICO, Cordova (*Boucard*).

2. *Iresia pulchra*.

I. boucardi affinis, sed differt abdomine nigro nitido haud rufo. Subcylindrica, nigra, nitida, elytris viridi-cyaneis fascia mediana violacea; palpis flavis, maxillarium articulis 2, labialium articulo 1, terminalibus nigris; fronte (inter antennas) labroque flavis hoc basi fusco; antennis nigris, articulis 1^o et 6^o-9^m albo-testaceis, 10^o-11^m fuscis; elytris basi et apice discrete punctatis medio grosse transversim rugatis; corpore subtus nigro, pedibus rufo-testaceis, tarsis fuscis.

Long. 4½ lin. ♂.

Hab. NICARAGUA, Chontales (*Belt*).

The single example taken by Mr. Belt is a male; and the specimen of *I. boucardi* in the Sallé collection is a female. I cannot, however, think that they are sexes of one and the same species, the colouring of the abdomen and palpi being so widely different.

CTENOSTOMA.

Ctenostoma, Klug, Nov. Act. Nat. Cur. x. 2, p. 304 (1821); Dej. Sp. Gén. Col. i. p. 152.

Procephalus, Castelnau, Rev. Ent. Silberm. ii. p. 35 (1834).

Myrmecilla, Lacordaire, Mém. Soc. Sci. Liège, i. p. 120 (1840).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, *December* 1881.

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Of this peculiar and highly characteristic Tropical-American genus thirty-five species have been described. It is doubtful whether any species occurs beyond the tropics north or south, the locality "Buenos Ayres" given by Klug for his *C. macilentum* being not well authenticated. Its nearest ally is the genus *Pogonostoma*, peculiar to Madagascar.

1. *Ctenostoma sallæi*.

Ctenostoma sallæi, Chaudoir, Bull. Mosc. 1860, ii. p. 275¹.

Hab. NICARAGUA, Chontales (*Belt*); PANAMA, Chiriqui (*Champion*).—SOUTH AMERICA, Venezuela¹.

I refer Central-American examples of this remarkable insect to *C. sallæi* of Chaudoir, relying chiefly on the scantier punctuation of the elytra mentioned in the description. In this character all the specimens differ from *C. insigne* of the Amazons, and inferentially from *C. metallicum* of Cayenne. In colour they are purplish coppery brown (rarely with a greenish tinge); but they greatly exceed the size (14 millim.) given by Chaudoir, varying from 16 to 20 millim.

2. *Ctenostoma maculicorne*. (Tab. I. fig. 21.)

Procephalus maculicornis, Chevrolat, Rev. et Mag. Zool. 1856, p. 352¹.

Ctenostoma sigma, Bates, Proc. Zool. Soc. 1878, p. 588².

Hab. MEXICO¹, Toxpam (*Sallé*); GUATEMALA, San Juan (*Champion*); NICARAGUA, Chontales (*Belt*²); PANAMA, Chiriqui (*Champion*).

C. sigma is identical with *C. maculicorne*, according to the type specimen in the Sallé collection; but there is nothing in the coloration of the antennæ to warrant the specific name given. Chiriqui examples differ slightly in the more strongly flexuose S-like pale fascia of the elytra.

3. *Ctenostoma læticolor*.

Ctenostoma læticolor, Bates, Proc. Zool. Soc. 1878, p. 588.

Hab. NICARAGUA, Chontales (*Janson*).

4. *Ctenostoma ibidion*.

Ctenostoma ibidion, Dohrn, Stettin. ent. Zeit. 1880, p. 372¹.

Hab. COSTA RICA¹.

Evidently distinct from the preceding, by the dense punctuation of the elytra, its small size (10 millim.), and colours.

Fam. CARABIDÆ.

Division I. *Mesothoracic epimera reaching the middle haunch-sockets.*

Subfam. *OMOPHRONINÆ.*

OMOPHRON.

Omophron, Latreille, Hist. Nat. Ins. viii. p. 270.

This curious genus, isolated in its morphological relations and showing some approximation to the water-beetles of the family Haliplidæ, has a wide distribution. It is spread over the warmer temperate and tropical zones of both hemispheres, but chiefly north of the equator, passing to the south only in Africa, where species occur in the tropical and south temperate parts as well as in the island of Madagascar. As far as known at present, the genus is absent from the Malayan region, Australia, and the whole of South America. Thirty-four species have been described.

1. Omophron gratus.

Omophron gratus, Chaudoir, Rev. et Mag. Zool. 1868, p. 3.

Hab. MEXICO, Izucar, Tuxtla, Etna, Durasnil, Oaxaca (*Sallé*), Vera Cruz, Oaxaca (*Höge*).

2. Omophron sphæricus.

Omophron sphæricum, Chevrolat, Col. Mex. ii. no. 167.

Hab. MEXICO, Vera Cruz (*Sallé*, *Höge*).

3. Omophron oblongiusculus. (Tab. II. fig. 1.)

Omophron oblongiusculum, Chevrolat, Col. Mex. ii. no. 166¹.

Hab. MEXICO, Las Vigas¹, Orizaba (*Sallé*); GUATEMALA, near the city (*Champion*).

Subfam. *NOTIOPHILINÆ.*

NOTIOPHILUS.

Notiophilus, Duméril, Zool. Analyt. p. 194; Chaudoir, Bull. Mosc. 1860, iv. p. 270.

Also an isolated genus, but restricted apparently to the northern hemisphere. The species are amongst the commonest coleopterous insects in high northern latitudes, and become rarer in the warmer temperate zone. The following is the first to be recorded from Tropical America.

1. Notiophilus specularis. (Tab. II. fig. 2.)

Elongato-oblongus, fusco-cupreus, antennis basi tibiisque rufescentibus; labro nigro, opaco; fronte utrinque prope oculum profunde sulcata medio sexcostulata, costulis supra convergentibus exteriore furcata; thorace

valde transverso, postice fortiter sinuato-angustato, angulis posticis acutis, punctato, disco lævi; elytris vitta suturali politissima, stria suturali obsoleta, vitta laterali latiore, opaca, striato-punctata, unifoveolata, striis vix impressis æqualiter inter se approximatis, punctis interdum obsoletis, interstitiis transversim multiimpressis.

Long. 2 lin.

Hab. MEXICO, Las Vigas (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

The first (inner) elytral stria is obsolete, except near the base; but it reappears as a very faint curved line near the apex, where it nearly joins the sutural stria. The species is allied to *N. semiopacus* (Eschsch.), but is larger, differently sculptured on the forehead and along the opaque vitta of the elytra.

Subfam. CARABINÆ.

CALOSOMA.

Calosoma, Weber, Obs. Entom. i. p. 20 (1801); Fabr. Syst. El. i. p. 211 (1801).

Upwards of 100 species of this almost universally distributed and conspicuous genus have been described. A large proportion of these are peculiar to Mexico; but the genus seems extremely rare in the countries of Central America further south.

1. *Calosoma scrutator*.

Carabus scrutator, Fabr. Ent. Syst. i. p. 149; Oliv. Ent. no. 35, p. 41, t. 3. f. 32*a, b*.

Hab. MEXICO, Toxpam (*Sallé*), Playa Vicente (*Höge*).—NORTH AMERICA.

A large series of this beautiful species, taken by Herr Höge, differ in no essential particular from specimens found in the Eastern United States.

2. *Calosoma aurocinctum*. (Tab. II. fig. 10.)

Calosoma aurocinctum, Chaud. Bull. Mosc. 1850, ii. p. 420.

Calosoma splendidum, Perbosc, Rev. Zool. 1839, p. 261 (nom. præocc.).

Hab. MEXICO, Campeche (*Sallé*), Yucatan (*Boucard*).

3. *Calosoma armatum*.

Calosoma armatum, Castelnau, Etud. Entom. p. 156¹.

Hab. MEXICO¹, Toxpam, Cordova, Chiapas (*Sallé*), Jalapa, Plan del Rio (*Höge*).—WEST INDIES, Jamaica.

Leconte considers this species to be the *alternans* of Fabr., described as from the West-Indian Islands. But the description of Fabricius, "striis (interstitiis) alternis latioribus," does not at all fit the Mexican and Jamaican insect, in which striæ and interstices are of uniform width, and suits better an allied species from Venezuela,

which apparently occurs also in Cuba, or the *C. coxale* (Motschulsky) from Venezuela and the Amazons.

4. *Calosoma viridisulcatum*.

Calosoma viridisulcatum, Chaudoir, Rev. et Mag. Zool. 1863, p. 114.

Hab. MEXICO.

A species unknown to me, and the position of which in the genus is not indicated by its describer.

5. *Calosoma angulatum*. (Tab. II. fig. 12.)

Calosoma angulatum, Chevrolat, Col. Mex. i. fasc. 2 (1834).

Hab. MEXICO, Orizaba, Palo Verde, Tehuantepec (*Sallé*), Esperanza, Plan del Rio (*Höge*).

A closely allied but sufficiently distinct species (*C. angulicolle*, Chaud.) occurs near Santa Marta, Colombia.

6. *Calosoma peregrinator*. (Tab. II. fig. 11.)

Calosoma peregrinator, Guérin, Rev. Zool. 1844, p. 255¹.

Hab. MEXICO¹, Guanajuato (*Dugès, coll. Sallé*), Sierra de S. Miguelito, Valle del Mais (*Dr. Palmer*), Plan del Rio, Jalapa (*Höge*).

Having been able to examine a large series of this species, including the type specimen of Guérin, I am able to state with certainty that it is quite distinct from *C. prominens*, Leconte, with which Dr. Leconte himself proposes to unite it. The thorax is relatively to the trunk very much larger and broader, and the elytra much less sculptured, the transverse imbricated rugulæ of the elytral interstices being confined to a small space near the shoulders, instead of extending over the whole basal portion of the elytra. In Guérin's type these rugulæ are reduced to a minimum, being confined to a few marginal marks behind the shoulder; this is the character of all the Jalapa specimens, those from Guanajuato having rather more sculpture in the basal and humeral region of the elytra. In general form and outline *C. peregrinator* resembles more closely the Texan *C. lugubre* (Leconte) than *C. prominens*.

7. *Calosoma affine*.

Calosoma affine, Chaudoir, Bull. Mosc. 1843, iv. p. 746¹.

Hab. MEXICO¹.

Differs from the shorter examples of *C. peregrinator* only by its more highly polished surface; some of Mr. Höge's specimens of the latter, from Plan del Rio, approach it very nearly in form and sculpture. Chaudoir very aptly compares his species to

C. glabratum of Colombia, which is of nearly the same form and still more polished. By some unexplained error this species is labelled in the Sallé collection *C. læve*, Dej., with the description of which it does not in the least accord.

8. *Calosoma læve*. (Tab. II. fig. 8.)

Calosoma læve, Dejean, Sp. Gén. Col. ii. p. 210 (1826)¹; Chevrolat, Col. Mex. ii. no. 164 (1835)².

Calosoma Chevrolatii, Dejean, Cat. 3^{me} éd. p. 25 (1837).

Hab. MEXICO¹, near the city, Perote² (*Sallé, Flohr*), Esperanza, Jalapa (*Höge*), Guanajuato (*Dugès, coll. Sallé*).

The common Mexican insect which I refer to *C. læve*, Dejean, is the only species which agrees with the description of this author as to size, peculiar rounded form of thorax, and especially the general outline or habit, which he happily hits off by his expression "il s'éloigne un peu par sa forme des espèces précédentes, et il a quelques rapports avec quelques grandes espèces de *Zabrus*, mais c'est un véritable *Calosoma*." Its resemblance to large species of *Zabrus*, such as *Z. femoratus*, can escape no one; and it is the only species of Mexican *Calosoma* of which this could be said. Chevrolat's description, though not so satisfactory, also fits the species; I cannot, therefore, understand why Dejean himself considered Chevrolat's insect distinct and gave it a new name. This view is adopted in the Munich Catalogue (vol. i. p. 79) and by M. Sallé, who has labelled his specimens of what are incontestably the *C. læve* of Dejean as *chevrolatii*, Dej., = *læve*, Chevr. It is possible that Dejean had before him a variety of his *læve* or an allied species named as the *læve* of Chevrolat. At Guanajuato *C. læve* exhibits numerous varieties both in form and sculpture, but all preserving the characteristic form of thorax.

9. *Calosoma anthracinum*.

Calosoma anthracinum, Dejean, Sp. Gén. Col. v. p. 569.

Hab. MEXICO.

Very closely allied to *C. læve*, but differing in the thorax being much less rounded and narrowed behind, and with distinct though obtuse hind angles. A specimen which I received many years ago under this name from M. Henri Deyrolle measures $12\frac{1}{2}$ lines and has smooth elytra. Dejean gives $10\frac{1}{2}$ lines as the length, and describes the elytra as being more distinctly punctate-striate than in *C. læve*; but the sculpture is exceedingly variable in this group.

10. *Calosoma lævigatum*.

Calosoma lævigatum, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 374.

Hab. MEXICO (*Sallé*).

11. **Calosoma politum.**

Calosoma politum, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 373.

Hab. MEXICO, Toluca (*Boucard*), near the city (*Flohr*).

12. **Calosoma striatulum.**

Calosoma striatulum, Chevrolat, Col. Mex. ii. no. 165¹.

Hab. MEXICO, Perote¹, Orizaba (*Sallé*), Las Vigas (*Höge*).

13. **Calosoma striatipenne.** (Tab. II. fig. 9.)

Calosoma striatipenne, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 373.

Hab. MEXICO, Puebla (*Boucard*).

14. **Calosoma cicatricosum.**

Calosoma cicatricosum, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 374¹.

Hab. MEXICO¹, near the city (*Flohr*, *Höge*).

This and the four preceding species are very closely related, and may be only local varieties of one stock.

15. **Calosoma costipenne.**

Calosoma costipenne, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 375.

Hab. MEXICO (*coll. Sallé*).

16. **Calosoma blaptoides.** (Tab. II. fig. 7.)

Calosoma blaptoides, Putzeys, Mém. Ac. Sc. Liège, ii. p. 400; Géhin, Ann. Soc. Ent. Fr. 1881, Bull. p. 178.

Hab. MEXICO, Capulalpam (*Sallé*), Cerro de Plumas (*Höge*).

17. **Calosoma atrovirens.**

Calosoma atrovirens, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 372¹.

Hab. MEXICO, interior¹.

18. **Calosoma dolens.** (Tab. II. fig. 20.)

Calosoma dolens, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 376¹.

Hab. MEXICO, Oaxaca¹, Capulalpam (*Sallé*), Guanajuato (*Dujès, coll. Sallé*).

19. **Calosoma depressicolle.** (Tab. II. fig. 6.)

Calosoma depressicolle, Chaudoir, Ann. Soc. Ent. Fr. 1869, p. 375¹.

Hab. MEXICO¹, Toluca (*Boucard*), near the city (*Flohr, Höge, Dr. Palmer*).

CALOPACHYS.

Calopachys, Haury, Le Naturaliste, Feb. 1, 1880, p. 164.

The following is the only species described of this genus, and is unknown to me :—

1. ***Calopachys viridissimus*.**

Calopachys viridissimus, Haury, loc. cit. p. 164.

Hab. MEXICO.

The author apparently is not quite sure of the locality of this remarkable insect, which must resemble in form the species of *Callisthenes*; he says “elle doit provenir du Mexique.”

Subfam. *LORICERINÆ*.

LORICERA.

Loricera, Latreille, Hist. Nat. Crust. et Ins. viii. p. 273.

A north-temperate and boreal genus, extending in the New World further south than in the Old, one species being found in Mexico and Guatemala. Eight species altogether have been described.

1. ***Loricera rotundicollis*.** (Tab. II. fig. 3.)

Loricera rotundicollis, Chaudoir, Rev. et Mag. Zool. 1863, p. 115.

Hab. MEXICO, Capulalpam, Parada, Toluca (*Sallé*), Las Vigas (*Höge*); GUATEMALA, Quiche Mountains (*Champion*).

Subfam. *OZÆNINÆ**.

SCYTHROPASUS.

Scythropasus, Chaudoir, Bull. Mosc. 1854, i. p. 293.

Two species only are known, both Tropical-American.

1. ***Scythropasus elongatus*.**

Scythropasus elongatus, Chaudoir, loc. cit. p. 295¹.

Hab. MEXICO, interior¹; NICARAGUA, Chontales (*Belt*).

* As this sheet is passing through the press a very important and original paper on the structure and classification of the Carabidæ has reached me, by favour of the author, Dr. G. H. Horn, of Philadelphia. In this work the Ozæninæ (with the exception of the Australian genus *Mystropomus*) are removed from the first to the second division of the family, Dr. Horn having made the discovery that in *Pachyteles* and *Physeia* the mesothoracic epimera do *not* reach the middle haunch-sockets. There can be no doubt of the accuracy of Dr. Horn's observations as far as the species examined by him are concerned; but I doubt whether it holds good with all the species. At any rate, the structure of the mesosternum, if not quite agreeing with that of other subfamilies of Division I., is quite different from that which characterizes Division II.

OZÆNA.

Ozæna, Olivier, Encycl. Méth. viii. pt. 2, p. 617 (1791); Chaudoir, Ann. Soc. Ent. Belg. xi. p. 50 (1818).

Ictinus, Castelnau, Etud. Ent. p. 53 (1835).

Also peculiar to Tropical America; three species have been described.

1. *Ozæna brevicornis*.

Ozæna brevicornis, Bates, Ent. Monthly Mag. xi. p. 24¹.

Hab. NICARAGUA, Chontales (*Belt*).—SOUTH AMERICA, Peru¹?

PACHYTELES.

Pachyteles, Perty, Del. An. Art. Brasil. p. 3, t. i. f. 10 (1830).

Ozæna (partim), Dejean, Sp. Gén. i. p. 433.

Ictinus (partim), Castelnau, Etud. Ent. p. 145 (1835).

Goniotropis, Gray, Griffith's An. King. i. p. 273 (1832).

Tropopsis, Solier, Gay, Hist. Chile, Zool. iv. p. 179 (1849).

Upwards of sixty species of this genus are known by descriptions. Two of the number are from West Tropical Africa, and one from Madagascar; the rest are exclusively American, ranging from Arizona in the north to Monte Video and Chili in the south.

1. *Pachyteles porrectus*.

Pachyteles porrectus, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 54¹ (1868).

Hab. MEXICO, Puebla (*Boucard*¹), Playa Vicente (*Sallé*); BRITISH HONDURAS (*Blancaneaux*); GUATEMALA, Izabal (*Sallé*), Panzos, San Isidro, Pantaleon (*Champion*); NICARAGUA, Chontales (*Belt*).

2. *Pachyteles funcki*. (Tab. II. fig. 5.)

Pachyteles Funckii, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 55 (1868)¹.

Hab. NICARAGUA, Chontales (*Belt*, *Janson*).—SOUTH AMERICA, Venezuela¹.

3. *Pachyteles verticalis*. (Tab. II. fig. 16.)

Ozæna verticalis, Chaudoir, Bull. Mosc. 1848, i. p. 104¹.

Pachyteles verticalis, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 56 (1868)².

Hab. MEXICO¹, Cordova (*Sallé*²), Jalapa, Las Vigas (*Höge*); GUATEMALA, Zapote, Pantaleon, Las Mercedes (*Champion*); NICARAGUA, Chontales (*Janson*).

In some examples, chiefly those of Nicaragua and Guatemala, the anterior and

posterior angles of the thorax are less advanced and acute than in typical Mexican specimens in the Sallé collection.

4. *Pachyteles fuliginellus*.

Pachyteles fuliginellus, Bates, Ent. Month. Mag. xi. p. 28.

Hab. NICARAGUA, Chontales (*Belt*).

Closely allied to *P. verticalis*, but the thorax narrower and more quadrate and with angles still less advanced than the variety of *P. verticalis* above mentioned.

5. *Pachyteles filiformis*.

Ozæna filiformis, Castelnau, Etud. Ent. p. 55¹.

Pachyteles filiformis, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 56 (1868)².

Hab. NICARAGUA, Chontales (*Janson*).—SOUTH AMERICA, Cayenne¹, Amazons².

6. *Pachyteles excisus*.

Pachyteles excisus, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 57¹.

Hab. NICARAGUA, Chontales (*Belt*).—SOUTH AMERICA, Cayenne¹.

An individual taken by Belt is evidently referable to this species, having the greatest possible similarity to *P. filiformis*, as the author states, with the exception that the sides of the thorax are more broadly margined and sinuated immediately behind the anterior angle.

7. *Pachyteles bacillus*.

P. filiformi minor, adhuc angustior, colore obscurior, nigro-castaneus, antennis, partibus oris pedibusque rufo-castaneis; capite conspicue punctato, fronte media lævi; thorace subcordato, ruguloso et postice punctato, angulis anticis prominulis acutis, lateribus mox pone angulos profunde excisis, deinde abrupte obtuse dilatatis et usque ad angulos posticos subrectis sed margine irregulariter flexuoso; elytris linearibus, parallelis, punctulato-striatis, interstitiis convexis, 3^o et 5^o punctis setiferis 2-3.

Long. 3¼ lin.

Hab. NICARAGUA, Chontales (*Belt*).

8. *Pachyteles punctulatus*.

Pachyteles punctulatus, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 59 (1868)¹.

Hab. MEXICO, Orizaba (*Boucard*¹), Misantla (*Höge*), Yucatan (*Pilate*¹); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*).

9. *Pachyteles seriatoporus*. (Tab. II. fig. 22.)

Pachyteles seriatoporus, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 61¹.

Hab. NICARAGUA, Chontales (*Belt*).—SOUTH AMERICA, Venezuela¹.

10. **Pachyteles mexicanus.**

Ozæna mexicana, Chaudoir, Bull. Mosc. 1848, i. p. 106.

Pachyteles mexicana, Ann. Soc. Ent. Belg. xi. p. 65¹.

Hab. MEXICO, Vera Cruz¹, Toxpam, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA, Cerro Zunil, Volcan de Atitlan (*Champion*); NICARAGUA, Chontales (*Belt*).

11. **Pachyteles cyanipennis.** (Tab. II. fig. 17.)

Ozæna cyanipennis, Chaudoir, Bull. Mosc. 1852, i. p. 40¹.

Pachyteles cyanipennis, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 65.

Ozæna cyanoptera, Thomson, Ann. Soc. Ent. Fr. 1856, p. 330, t. 8. f. 7¹.

Hab. MEXICO¹, Toxpam, Cordova (*Sallé*); GUATEMALA, Senahu (*Champion*); NICARAGUA, Chontales.

12. **Pachyteles oxyomus.**

Pachyteles oxyomus, Chaudoir, Ann. Soc. Ent. Belg. xi. p. 71¹.

Hab. MEXICO, Teapa (*Pilate*¹).

PHYSEA.

Physea, Brullé, Hist. Nat. Ins. iv. p. 473 (1834).

Trachelizus, Solier, Ann. Soc. Ent. Fr. 1836, p. 598.

Four species of this singular genus have been described, all Tropical-American.

1. **Physea hirta.** (Tab. II. fig. 4.)

Physea hirta, Leconte, Trans. Amer. Phil. Soc. x. p. 393¹.

Physea latipes, Schaum, Berl. ent. Zeitschr. 1864, p. 117².

Hab. MEXICO^{1 2}, Cordova (*Sallé*), Oaxaca (*Höge*); GUATEMALA, Zapote (*Champion*).

Subfam. SCARITINÆ.

PASIMACHUS.

Pasimachus, Bonelli, Mém. Acad. Turin, 1813, p. 476.

Molobrus, Putzeys, Mém. Soc. Roy. des Sci. Liège, 1846, ii. p. 362.

Emydopterus, Lacordaire, Gen. Col. i. p. 191 (1854).

Twenty-five species of this exclusively North-American genus have been described. The more typical species, constituting the majority, are found chiefly in the temperate zone; the ill-defined section *Molobrus*, in which the hind angles of the thorax tend to disappear, have a more southern range, being confined to Mexico and the Central-American countries further south. The genus is not known in South America; and its nearest allies are the *Carenum* group of Australia and *Mouhotia* of the Indo-Chinese peninsula.

1. **Pasimachus californicus.**

Pasimachus californicus, Chaudoir, Bull. Mosc. 1850, ii. p. 437¹.

Pasimachus punctulatus, Leconte, Ann. Lyc. N. York, iv. p. 146, t. 7. f. 3 (nec Haldem.); Bull. Buffalo Soc. Nat. Sci. 1874, p. 273².

Pasimachus validus, Leconte, Journ. Acad. Nat. Sci. Phil. iv. p. 14, t. 4. f. 10².

Hab. NORTH AMERICA, California¹, Texas northwards to Colorado and Utah².—MEXICO, Guanajuato (*Dugès, coll. Sallé*).

2. **Pasimachus mexicanus.** (Tab. II. fig. 13.)

Pasimachus mexicanus, Gray, Griffith, An. Kingd. Ins. i. p. 274, t. 12. f. 1.

Hab. MEXICO.

3. **Pasimachus viridans.**

Pasimachus viridans, Leconte, Proc. Acad. Phil. 1858, p. 61.

Pasimachus mexicanus (Gray), Leconte, Bull. Buffalo Acad. Nat. Sci. 1874, p. 270¹.

Hab. NORTH AMERICA, Arizona ?¹.—MEXICO, Sonora (*coll. Bates*).

Differs from *P. mexicanus* in its smaller size and narrower form, and in the thorax being much more rounded and narrower behind, with the angles less produced.

4. **Pasimachus tolucanus.**

Pasimachus tolucanus, Chaudoir, Ann. Soc. Ent. Fr. 1880, Bull. p. lxxxv¹.

Hab. MEXICO, Toluca (*Sallé*¹).

5. **Pasimachus quadricollis.**

Pasimachus quadricollis, Chaudoir, Ann. Soc. Ent. Fr. 1880, Bull. p. lxxxvi¹.

Hab. MEXICO (*Sallé*¹).

6. **Pasimachus sallæi.** (Tab. II. fig. 15.)

Pasimachus Sallæi, Chaudoir, Rev. et Mag. Zool. 1862, p. 488¹.

Hab. MEXICO, Vera Cruz (*Sallé*¹); Cordova (*Sallé*), Minas Viejas (*Dr. Palmer*), Jalapa (*Höge*).

7. **Pasimachus cardioderus.**

Pasimachus (Molobrus) cardioderus, Chaudoir, Ann. Soc. Ent. Fr. 1880, Bull. p. lxxxvi¹.

Hab. BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA (*Sallé*¹), Capetillo, Escuintla, Cerro Zunil (*Champion*).

8. **Pasimachus cordicollis.**

Pasimachus (Molobrus) cordicollis, Chaudoir, Rev. et Mag. Zool. 1862, p. 487¹.

Hab. CENTRAL AMERICA¹; COSTA RICA (*Sallé*).

9. **Pasimachus subangulatus.** (Tab. II. fig. 18.)

Pasimachus (Molobrus) subangulatus, Chaudoir, Rev. et Mag. Zool. 1862, p. 487¹.

Hab. MEXICO¹.

10. **Pasimachus intermedius.**

Pasimachus (Molobrus) intermedius, Chaudoir, Ann. Soc. Ent. Fr. 1880, Bull. p. lxxxvii¹.

Hab. COSTA RICA (*Sallé*¹, *Rogers*).

11. **Pasimachus aurocinctus.**

Pasimachus aurocinctus, Chaudoir, Ann. Soc. Ent. Fr. 1880, Bull. p. lxxxvii¹.

Hab. MEXICO, Tehuantepec¹.

12. **Pasimachus metallicus.**

Pasimachus (Molobrus) metallicus, Chaudoir, Ann. Soc. Ent. Fr. 1880, Bull. p. lxxxviii¹.

Hab. MEXICO, Uruapam (*Sallé*¹).

13. **Pasimachus rodriguezi.** (Tab. II. fig. 14.)

Molobrus Rodriguezi, Putzeys, Ann. Soc. Ent. Belg. x. p. 4 (1867)¹.

Hab. BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA (*Rodriguez*¹), Escuintla (*Champion*).

14. **Pasimachus purpuratus.**

Molobrus purpuratus, Putzeys, Mém. Soc. R. d. Sc. Liège, ii. p. 362.

Hab. MEXICO, Yucatan (*Sallé*), Tehuantepec (*Sumichrast*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*).

15. **Pasimachus splendidus.**

Molobrus splendidus, Putzeys, Mém. Soc. R. d. Sc. Liège, ii. p. 363¹.

Hab. MEXICO, Oaxaca, Villa Alta¹, Cosamaloapam, Campeche (*Sallé*).

16. **Pasimachus rotundipennis.** (Tab. II. fig. 19.)

Pasimachus rotundipennis, Chevrolat, Col. Mex. i. fasc. 2 (1833).

Var. elytrorum marginibus igneo-purpureis vel aureis.

Emydopterus rotundipennis, Lacordaire, Gen. Col. Atlas, t. 8. f. 1.

Hab. MEXICO, Jalapa (*Höge*); var., Cordova (*Sallé*).

DISTICHUS.

Distichus, Motschulsky, Etud. Ent. 1857, p. 96; Chaudoir, Monogr. d. Scaritides, ii. p. 44 (1880).

Tæniolobus (partim), Chaudoir, Bull. Mosc. 1855, i. p. 30.

Scarites, Fabr., Dejean.

Eighteen species of this division of the old genus *Scarites* are known, found chiefly in Tropical and Subtropical South America, the minority occurring in the warmer parts of Africa and in Southern Asia. The following is the only species yet known from Central America. Of the allied genera *Tæniolobus* and *Glyptogrus*, Bates (= *Hologaster* and *Glyptogaster*, Chaud.), which are still richer in Tropical South-American species, none has yet been recorded from the regions northward of Panama.

1. *Distichus septentrionalis*.

D. triviali et *lacordairei* affinis, sed differt epistomate quadridenticulato. Niger, nitidus, antennis, palpis et pedibus rufo-piceis; mandibulis elongatis medio intus subito angustatis, supra (præcipue basi) fortiter bicarinatis, inter carinas lævibus; epistomate 4-denticulato; sulcis frontalibus latis parce strigulatis, verticis lateribus punctulatis; oculis cum orbitis posterioribus modice extantibus; thorace brevi, postice fere ut in *D. lacordairei* rotundato, denticulo utrinque parvo ad angulum; elytris subconvexis, quam in *D. gagatino* latioribus, modice striatis interstitiis leviter convexis, tertio quadripunctato; tibiis intermediis extus unispinosis; segmento anali medio haud punctato; mento leviter ruguloso, paragenis basi latis, planis, lævibus, extus recte carinatis, intus medio angulatis sed haud dentatis.

Long. $6\frac{1}{2}$ lin.

Hab. NICARAGUA, Chontales (*Belt*).

SCARITES.

Scarites, Fabr. Syst. El. i. p. 123; Chaudoir, Monogr. d. Scaritides, p. 63 (1880).

Similar in range to the preceding genus; but more abundant in species in the Old World than in the New. About eighty species are known, only one of which seems to occur in the Central-American region.

1. *Scarites texanus*.

Scarites texanus, Chaudoir, Monogr. d. Scaritides, p. 94¹.

Hab. NORTH AMERICA, Texas¹.—MEXICO, Yucatan¹?, Vera Cruz (*Höge*).

Taken in large numbers by Mr. Höge, but apparently not met with by M. Sallé.

CAMPTODONTUS.

Camptodontus, Dej. Spec. Gén. ii. p. 476.

A genus peculiar to the New World. With the exception of one species from the La Plata and the following, all the described species (thirteen in number) are from the tropical zone of South America.

1. *Camptodontus isthmius*.

C. cayennensi differt statura minore, capite sparsim grosse punctato etc. Niger, palpis, antennis et tarsis fulvotestaceis; capite ante oculos rotundato, margine incrassato curvato, post oculos orbitu brevi valde prominulo subconico, fronte grosse irregulariter punctato; thorace postice versus angulos haud angustato,

sulcis lateralibus angustis, punctatis, postice haud conjunctis; elytris æqualiter punctato-sulcatis, interstitiis 1° et 2° planis, cæteris convexis sed haud cariniformibus.

Long. $4\frac{3}{4}$ lin.

Hab. PANAMA (*coll. Bates*).

DYSCHIRIUS.

Dyschirius, Bonelli, Mém. Acad. Turin, 1813, p. 483; Putzeys, Révis. Gén. des Clivinides, p. 32 (1867).

A genus of almost universal distribution, but much more numerous in species in temperate than in tropical latitudes, and met with as far north as Lapland in Europe and Sitka in North America. It occurs in Australia and in many suboceanic islands, but apparently not in New Zealand or in islands truly oceanic like St. Helena; and very few have been found in South America. More than 150 species have been described, only one of which is recorded from the Mexican and Central-American region.

1. *Dyschirius planiusculus*.

Dyschirius planiusculus, Putzeys, Révis. Gén. des Clivinides, p. 50¹.

Hab. MEXICO (*Riehl*¹).

2. *Dyschirius guatemalensis*.

Lætius subaurato-æneus, antennis, partibus oris pedibusque testaceo-fulvis, femoribus anticis obscurioribus; sulcis frontalibus latis profundis et sulculo utrinque angustiore juxta oculum; thorace quadrato subglobuloso, marginibus lateralibus antice distinctis; elytris usque ad apicem et margines striatis, striis apud dimidium basale grosse punctatis.

Long. $1\frac{1}{4}$ lin.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Similar in form to the common European *D. globosus*, but the elytra narrower, more oblong, and less convex. It differs from *D. planiusculus* by its much smaller size, bright golden-brassy colour, and the striation of the elytra, which is sharply marked to the apex and on the margins except over a narrow space along the posterior part of the latter.

OXYDREPANUS.

Oxydrepanus, Putzeys, Révis. Gén. des Clivinides, p. 103 (1867).

Seven species of this genus are enumerated by M. Putzeys, all Tropical-American.

1. *Oxydrepanus mexicanus*.

Oxydrepanus mexicanus, Putz. loc. cit. p. 106.

Hab. MEXICO, Cordova (*Sallé*), Bobo (*Höge*); GUATEMALA (*Sallé*), San Gerónimo, Torola, Paraiso, Paso Antonio (*Champion*).

CLIVINA.

Clivina, Latreille, Considérations Générales s. l. Crust. Arachn. et Ins. p. 156 (1810); Putzeys, Mém. Ac. R. Liège, ii. 1846, p. 59.

Similar in its wide distribution to *Dyschirius*, and even more numerous in species; a larger proportion, however, have been described from the tropical zone, and it is well represented in Central and other parts of Tropical America. About 220 species are known.

1. *Clivina planulata*.

Clivina planulata, Putzeys, Révis. Gén. p. 140¹.

Hab. MEXICO (*Deyrolle*¹).

2. *Clivina planicollis*.

Clivina planicollis, Leconte, Proc. Acad. Phil. 1857, p. 81¹; Putzeys, Révis. Gén. p. 142².

Hab. NORTH AMERICA, United States¹.—MEXICO², Vera Cruz, Cordova, La Soledad (*Sallé*).

3. *Clivina lucida*.

Clivina lucida, Putzeys, Révis. Gén. p. 150¹.

Hab. MEXICO (*Riehl*¹).

4. *Clivina distigma*. (Tab. II. fig. 24.)

Clivina distigma, Putzeys, Révis. Gén. p. 151¹.

Hab. MEXICO¹, Cordova (*Sallé*), Valle del Maiz (*Dr. Palmer*), Jalapa (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

5. *Clivina cruciata*.

Clivina cruciata, Putzeys, Révis. Gén. p. 152.

Hab. MEXICO, Tuxtla (*Sallé*); GUATEMALA, Zapote (*Champion*).

6. *Clivina brunneipennis*.

Clivina brunneipennis, Putz. Monogr. Clivinides, p. 107¹.

Clivina brunneipennis, id. Révis. Gén. p. 159.

Hab. MEXICO¹, San Luis Potosi (*Dr. Palmer*), Oaxaca (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

7. *Clivina bituberculata*.

Clivina tuberculata, Putzeys, Révis. Gén. p. 161¹.

Hab. MEXICO¹.

8. *Clivina fasciata*.

Clivina fasciata, Putzeys, Monogr. Clivinides, p. 106¹; id. Révis. Gén. p. 162.

Hab. MEXICO, Merida, Yucatan (*Pilate*)¹.

There are examples of a *Clivina* in the Sallé collection (besides a typical one from Yucatan), from Guanajuato and Cordova in Mexico, and from Nicaragua, which, although unnamed by M. Sallé, appear to me to belong to this species; as, however, they differ somewhat among themselves and from the Yucatan specimen in form and size, their determination is doubtful. Other examples from Oaxaca (*Höge*) and Guatemala (*Champion*) are similarly doubtful.

9. *Clivina dilutipennis*.

Clivina dilutipennis, Putzeys, Révis. Gén. p. 163¹.

Hab. MEXICO, Tuxtla (*Sallé*)¹.

10. *Clivina dentifemorata*.

Clivina dentifemorata, Putzeys, Monogr. Clivinides, p. 90; id. Révis. Gén. p. 171¹.

Hab. MEXICO, Cordova (*Sallé*)¹, Cosamoapam, Tuxtla (*Sallé*), Oaxaca (*Höge*); GUATEMALA, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Janson*).

11. *Clivina adstricta*.

Clivina adstricta, Putzeys, Révis. Gén. p. 171¹.

Hab. MEXICO¹.

12. *Clivina spinipes*.

Clivina spinipes, Putzeys, Révis. Gén. p. 174¹.

Hab. GUATEMALA¹ (*Sallé*); NICARAGUA (*Sallé*).

13. *Clivina parvidens*.

Clivina parvidens, Putzeys, Révis. Gén. p. 175¹.

Hab. MEXICO, Playa Vicente¹ (*Sallé*).

14. *Clivina brunnea*.

Clivina brunnea, Putzeys, Monogr. Clivinides, p. 87; id. Révis. Gén. p. 175¹.

Hab. MEXICO (*Truqui*)¹, city of Mexico (*Sallé*).

ARDISTOMIS.

Ardistomis, Putzeys, Mém. Ac. Liège, ii. 1846, p. 636 (Monogr. des Clivinides, p. 118).

A genus peculiar to America, with the exception of one species from Siam, doubtfully referred to it by Putzeys. The great majority are confined to the tropical zone,
BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, December 1881. ff

including the West Indies; but some occur in temperate latitudes; both north and south. Forty-five species have been described.

1. **Ardistomis convexa.** (Tab. II. fig. 25.)

Ardistomis convexa, Putzeys, Révis. Gén. des Clivinides, p. 202¹.

Hab. MEXICO, Cordova¹ (*Sallé*), Oaxaca (*Höge*); GUATEMALA, Torola (*Champion*).

2. **Ardistomis rotundipennis.**

Ardistomis rotundipennis, Putzeys, Révis. Gén. p. 206¹.

Hab. CENTRAL AMERICA¹.

3. **Ardistomis striga.**

Ardistomis striga, Putzeys, Révis. Gén. p. 211¹.

Hab. PANAMA¹.

4. **Ardistomis soror.**

Ardistomis soror, Putzeys, Monogr. des Clivinides, p. 124¹.

Ardistomis seriepunctata, Brullé, Putzeys², var. ?

Hab. PANAMA.—SOUTH AMERICA, Colombia¹, Brazil².

A. soror differs from the widely distributed South-American *A. seriepunctata* only by its rather smaller size and slightly narrower thorax, and cannot be considered more than a feebly differentiated local variety. *A. batesii* (Putz.), from the Amazons, is another local form having rather shorter and broader elytra. The *A. constricta* of the same group is distinguished by its much more convex thorax; the following is another member of the group, differing from the rest by its elongate form.

5. **Ardistomis educta.**

A. seriepunctatae affinis, sed multo longior. . Elongata, nigro-ænea, partibus oris, antennis pedibusque rufo-testaceis; capite angusto, oculis minus prominentibus, thorace oblongo antice perparum postice oblique angustato, dorso antico minus convexo; elytris elongatis integre et argute striatis, stria suturali haud validiore apud basin cum 2^a fere conjuncta; interstitiis subplanis, 3^o conspicue 5-punctato.

Long. 2½ lin. (5½ millim.).

Hab. GUATEMALA, Paso Antonio (*Champion*).

6. **Ardistomis dyschirioides.**

Ardistomis dyschirioides, Putzeys, Monogr. Clivinides, p. 126¹?

Hab. PANAMA (*coll. Bates*).—SOUTH AMERICA, Colombia¹.

I refer a single example of a small insect with broad thorax and *Dyschirius*-like aspect to this species, the description of which is too vague to enable one to fix it with certainty.

7. *Ardistomis labialis*.

Clivina labialis, Chaudoir, Bull. Mosc. 1837, iii. p. 18¹.

Ardistomis labialis, Putzeys, Monogr. Clivinides, p. 648.

Hab. MEXICO¹, Toxpam, Cordova, Juquila (*Sallé*), Oaxaca (*Höge*); GUATEMALA, San Gerónimo, Guatemala city (*Champion*); HONDURAS (*Sallé*); NICARAGUA, Chontales (*Janson*).

Var. *picipes*: antennis, partibus oris pedibusque piceo-fuscis; thorace minus globoso, elytris striis minus impressis.

Hab. GUATEMALA, near the city (*Champion*).

Var. *nanus*: multo minor (vix 2 lin.), thorace cordato.

Hab. GUATEMALA, Torolo (*Champion*).

Var. *dilatatus*: minor (2 lin.), thorace dilatato, valde transverso.

Hab. GUATEMALA, Zapote (*Champion*).

8. *Ardistomis tuspanensis*.

Ardistomis Tuspanensis, Putzeys, Monogr. Clivinides, p. 131¹.

Hab. MEXICO, Tuspan¹, Cordova (*Sallé*), Vera Cruz, Oaxaca (*Höge*).

Typical specimens of the two preceding species, *i. e.* those which conform best with the descriptions of their authors, seem specifically well defined. Those belonging to *A. labialis* are larger ($2\frac{3}{4}$ lines), have a broadish subglobose thorax and (on the disk of elytra) feebly impressed punctured striæ; whilst those referable to *A. tuspanensis* are decidedly smaller ($2\frac{1}{4}$ lines), have a rather narrow cordiform thorax, and more coarsely punctured and deeply-impressed elytral striæ. Between these extremes, however, there is, either in the same or in other localities, every grade of variation; and I doubt if it is possible to rigorously define the two species. This applies to examples having similarly elongate oblong-ovate elytra; but varieties occur in which the elytra are much shorter and relatively broader. These have a *primâ facie* appearance of distinct species; but as all details of their structure, and the characteristic arrangement of the striæ near the base of the elytra, offer no differences, I prefer to consider them as varieties. The dark-legged variety (*A. picipes*) from the neighbourhood of Guatemala city has a form of thorax intermediate between that of *A. labialis* and *A. tuspanensis*, and the punctures and striæ of the elytra are less deeply impressed even than in the former of the two species.

With such evidence of the variability of *A. labialis* I doubt whether the following can be retained as distinct.

9. *Ardistomis propinqua*.

Ardistomis propinqua, Putzeys, Révis. Gén. p. 214¹.

Hab. MEXICO, Oaxaca¹, Cuernavaca, Puebla (*Sallé*), Mexico city (*Flohr*).

Although Herr Höge collected industriously at Oaxaca, he did not meet with this species there. It appears to be common near the city of Mexico. Its essential characters are the great number of piliferous punctures on the elytra and the abdomen, the terminal segment of the latter having five on each side.

ASPIDOGLOSSA.

Aspidoglossa, Putzeys, Monogr. Clivinides, p. 108.

Like the preceding genus, peculiar to America. Twenty-two species have been described.

1. *Aspidoglossa torrida*.

Aspidoglossa torrida, Putzeys, Monogr. Clivinides, p. 113; id. Révis. Gén. p. 216.

Hab. MEXICO.

Not in the Sallé collection.

2. *Aspidoglossa mexicana*.

Clivina mexicana, Chaudoir, Bull. Mosc. 1837, iii. p. 18¹; Putzeys, Révis. Gén. p. 217².

Hab. MEXICO¹, Tlacotalpam² (*Sallé*), Oaxaca (*Höge*).

The majority of Herr Höge's Oaxaca specimens are 3 lines in length, and agree therefore in size with the *mexicana* originally described by Chaudoir. With them, however, are a few others only 2½ lines long. The character given by Putzeys, "interstitio 3^{io} 9-punctato," is not to be detected in any of the scores of examples I have examined; the setiferous punctuation of the interstice does not differ from that of *A. curta* and allies.

3. *Aspidoglossa distincta*. (Tab. II. fig. 21.)

Aspidoglossa distincta, Putzeys, Révis. Gén. p. 217¹.

Aspidoglossa mexicana (Chaud.), id. Monogr. Clivinides, p. 217.

Hab. MEXICO, Yucatan¹, Teapa (*Sallé*).

I fail to detect any valid difference between this species and *A. mexicana*, either in M. Sallé's specimen or in M. Putzeys' description.

4. *Aspidoglossa curta*.

Aspidoglossa curta, Putzeys, Révis. Gén. p. 220¹.

Hab. GUATEMALA, San Gerónimo, Guatemala city (*Champion*); NICARAGUA¹ (*Sallé*), Chontales (*Janson*).

Except the smaller average size (2½ lines), there is very little perceptible difference between this species and *A. mexicana*; the interstices appear to be more convex,

especially towards the apex, and the marginal groove of the pronotum a little more distinctly crenulated.

5. *Aspidoglossa brachydera*.

Aspidoglossa brachyderus, Bates, Proc. Zool. Soc. 1878, p. 589.

“In hoc genere brevis; thorace brevi et lato. Nigro-ænea, palpis antennis pedibusque piceo-testaceis, elytris apicem versus diffuse rufescentibus; clypei margine haud emarginato, fovea frontali parva, simplici; thorace lato, convexo, antice angustato, lateribus fere ut in *A. subangulata* angulatis; elytris oblongo-ovatis, versus basin paullo angustatis, fortiter striatis, striis passim crenatis, interstitio tertio tripunctato. “Long. $2\frac{1}{4}$ lin.”

Hab. PANAMA (*coll. Bates*).

Distinguished from all other species by the very short and broad thorax. The forehead is smooth in the centre, and the antero-lateral angles of the epistome only slightly produced and rounded.

SCHIZOGENIUS.

Schizogenius, Putzeys, Monogr. Clivinides, p. 131; id. Révis. Gén. p. 222.

Peculiar, like the two preceding genera, to America, and extending like them to the temperate regions north and south. About thirty species have been described.

1. *Schizogenius optimus*.

S. dyschirioidi proxime affinis, sed multo major. Convexus, fusco-cupreus, thorace viridi-aureo nitenti, elytrisque marginibus viridibus; fronte octocarinulata carinulis 2 medianis late separatis antice paullo convergentibus, ante oculum utrinque carinulis duabus brevibus; epistomate medio carina semicirculari tribusque anticis rectis; thorace quadrato antice haud angustato, supra convexo, sulculis lateralibus nullis; elytris fortiter striatis, striis basin versus punctatis, interstitiis interioribus usque ad apicem planatis absque punctis setiferis; antennis pedibus elytrorumque margine deflexo piceo-rufis.

Long. $2\frac{3}{4}$ – $3\frac{1}{4}$ lin.

Hab. GUATEMALA, Rio Naranjo (*Champion*).

2. *Schizogenius truquii*.

Schizogenius Truquii, Putzeys, Révis. Gén. p. 224¹.

Hab. MEXICO (*Truqui*¹).

3. *Schizogenius tristriatus*. (Tab. II. fig. 23.)

Schizogenius tristriatus, Putzeys, Monogr. Clivinides, p. 133¹.

Var. *Schizogenius longipennis*, id. Révis. Gén. p. 227¹.

Long. $1\frac{1}{2}$ – $2\frac{3}{4}$ lin.

Hab. MEXICO¹, Cordova, Guanajuato, Playa Vicente (*Sallé*), Jalapa, Bobo, Oaxaca (*Höge*); GUATEMALA, near the city (*Salvin, Champion*), San Gerónimo, Rio Naranjo, Panajachel, Paraiso, Pantaleon, Rio Maria Linda (*Champion*).

The variety *longipennis* occurs in company with the type form at Cordova, San

Gerónimo, and other localities; but at Oaxaca all the examples taken by Herr Höge are *longipennis*. Besides size and colour, the species varies greatly in convexity and in the size and position of the setiferous interstitial punctures. In the flattened examples (*tristriatus* sensu strictiori) these latter are generally near the middle of the interstice and very conspicuous; but in the more convex *longipennis* they are frequently, but not always, on the sides, and are with difficulty distinguished from the punctures of the striae. There are, however, all gradations between the two forms.

4. *Schizogenius strigicollis*.

Schizogenius strigicollis, Putzeys, Monogr. Clivinides, p. 132¹; id. Postscript ad Mon. t. 1. fig. 38.

Hab. MEXICO¹.—SOUTH AMERICA, Colombia¹.

5. *Schizogenius auripennis*.

S. strigicollis affinis, sed differt elytris totis viridi-auratis, carinulisque centralibus epistomatis cum spina mediana haud conjunctis. Cylindrica, castaneo-fusca (interdum subtus pallidior), elytris laete viridi-auratis, antennis, partibus oris, pedibus, elytrorumque marginibus testaceo-fulvis; fronte carinis duabus medianis validis, parallelis, alterisque 2 vel 3 utrinque angustioribus; epistomatis carinulis medianis duabus valde abbreviatis, spina centrali disjunctis; thorace quadrato, antice nullo modo angustato, supra convexo, sulculo utrinque unico subcurvato; elytris convexis, integre striatis, striis versus basin punctulatis, interstitiis 3^o, 5^o et 7^o pluripunctatis.

Long $1\frac{2}{3}$ lin. ($3\frac{1}{2}$ –4 millim.).

Hab. GUATEMALA, Teleman (*Champion*).

6. *Schizogenius tenuis*.

Angustus, modice convexus, niger viridi tinctus, postice interdum rufescens; antennis, palpis et pedibus fulvis; fronte carinulis medianis late separatis (postice modice divergentibus), alteris utrinque tribus extus gradatim brevioribus; epistomatis carinulis medianis antice (longe ante spinam) conjunctis, semicirculum efficientibus; thorace subelongato convexo, sulculo utrinque angulatim curvato; elytris fortiter punctato-striatis, punctis versus apicem minoribus, interstitio 3^o tripunctato, 5^o prope basin unipunctato.

Long. $1\frac{1}{2}$ lin.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Differs from all the species described by M. Putzeys in the number of setiferous punctures on the elytral interstices.

Division II. *Epimera of the mesothorax not reaching the middle haunch-sockets.*

Subdivision A. *Diversimani*.

This new subdivision is here proposed for the reception of the Broscidæ group of authors, which differs from all other aggregates of genera in the Carabidæ by the great diversity in the form and number of the dilated joints of the male tarsi, the palms of the same being invariably clothed with a smooth brush of hairs. Not only are the tarsi of the middle, as well as of the front, pair of legs sometimes dilated (gen.

Cascelius, *Cerotalis*, and others), but the number of dilated joints varies from species to species, and in some members of the typical genus (*Broscus*) is reduced to two, on the anterior tarsi only; and, again, species occur in which the male tarsi are simple like the female. This peculiarity sufficiently distinguishes the subdivision from the equivalent groups of the same rank named Patellimani, Simplicimani, Quadrimani, &c. by the old authors; and the position of the subdivision at the commencement of the second great section of the Carabidæ, which I now adopt, is sufficiently indicated by the occurrence in one or other of the genera of minor characters distinctive of the first great section—for instance, the glabrous surface of the four basal joints of the antennæ, a character which does not reappear henceforward in the long series of forms belonging to the second division of this great family. The genus *Cnemalobus*, hitherto included in the group Broscidæ, must be excluded both from the subdivision and the subfamily, as it possesses cartilaginous scales in pairs on the palms of the dilated joints.

No member of the family Broscidæ* has hitherto been detected in Central America; but I refer, though not without much hesitation, to the same subdivision the subfamily Peleciinæ, of which many representatives occur in Mexico, and to which the African genus *Disphæricus* also belongs. The form of the head and palpi are in this family quite different from any thing known in the Broscidæ; but the tarsal structure approximates closely to that exhibited in the males of the Broscid genus *Cerotalis*, with the important difference that in Peleciinæ the structure is the same in both sexes.

Subfamily PELECIINÆ.

PELECIUM.

Pelecium, Kirby, Trans. Linn. Soc. xii. p. 377 (1817); Chaudoir, Bull. Mosc. 1854, ii. p. 333.

Eriphus, Dej. Sp. Gén. Col. iv. p. 8 (1829).

Augasmosomus, Chaudoir, Bull. Mosc. 1846, iv. p. 527.

Twenty-four species of this remarkable genus are known, peculiar to South Brazil, the northern parts of South America, and Mexico.

1. *Pelecium aterrimum*. (Tab. III. fig. 1.)

Pelecium aterrimum, Chaudoir, Bull. Mosc. 1854, ii. p. 336¹.

Pelecium nitidum, Chaudoir, Berl. entom. Zeitschr. 1861, p. 129².

Hab. MEXICO¹, Orizaba², Jacale (*Sallé*), Las Vigas (*Höge*).

From M. Sallé's specimens and the fine series taken by Herr Höge it is clear that the slight differences on which Chaudoir separated this species into two are not of specific importance. The size varies from $3\frac{1}{4}$ to $5\frac{1}{2}$ lines.

* *Broscus basalis* (Newman, Ent. Mag. v. 388) is recorded from Mexico; but Mr. C. O. Waterhouse, who has examined the type specimen in the British Museum, informs me it is identical with *B. glaber*, Brullé, from the Canaries.

2. *Pelecium scydmænoides*.

Eripus scydmænoides, Dejean, Sp. Gén. Col. iv. p. 10¹.

Pelecium scydmænoides, Chaudoir, Berl. entom. Zeitschr. 1861, p. 129.

Hab. MEXICO¹.

3. *Pelecium suturale*.

Pelecium suturale, Chaudoir, Berl. entom. Zeitschr. 1861, p. 129¹.

Hab. MEXICO¹, Cordova (*Sallé*).

4. *Pelecium microphthalmum*.

Pelecium microphthalmum, Chaudoir, Rev. et Mag. Zool. 1866, p. 108¹.

Hab. MEXICO¹, Orizaba (*Sallé*).

5. *Pelecium globipenne*.

Pelecium globipenne, Chaudoir, Rev. et Mag. Zool. 1866, p. 109¹.

Hab. MEXICO¹, Orizaba (*Sallé*).

6. *Pelecium subdentatum*.

Pelecium subdentatum, Chaudoir, Rev. et Mag. Zool. 1866, p. 109¹.

Hab. MEXICO¹.

7. *Pelecium subcæcum*.

Pelecium subcæcum, Chaudoir, Rev. et Mag. Zool. 1866, p. 110¹.

Hab. MEXICO¹.

Subdivision B. *Patellimani* (Latreille, Dejean).

Subfamily *PANAGÆINÆ*.

PANAGÆUS.

Panagæus, Latreille, Hist. Nat. Crust. et Ins. viii. p. 291 (1804); Chaudoir, Essai Monogr. sur les Panagéides, p. 92 (1878).

As restricted by Chaudoir this genus contains only nine known species, and is confined to the northern hemisphere in both the new and old worlds.

1. *Panagæus panamensis*.

Panagæus panamensis, Laferté, Ann. Soc. Ent. Fr. 1851, p. 223; Chaudoir, Bull. Mosc. 1861, iv. p. 352¹; id. Essai Monogr. sur les Panagéides, p. 96.

Hab. PANAMA¹.

2. *Panagæus quadrisignatus*.

Panagæus quadrisignatus, Chevrolat, Col. Mex. ii. no. 187 (1835)¹; Chaudoir, Essai Monogr. s. 1. Panagéides, p. 97².

Panagæus Thomæ, Schaum, Ann. Soc. Ent. Fr. 1853, p. 441³.

Panagæus mexicanus, Putzeys, Mém. Soc. Sc. Liège, ii. 1846, p. 401.

Hab. MEXICO², Vera Cruz (*Sallé*)¹.—WEST INDIES, St. Thomas^{2 3}.

3. *Panagæus sallæi*. (Tab. III. fig. 2.)

Panagæus Sallæi, Chaudoir, Bull. Mosc. 1861, ii. p. 353; id. Essai Monogr. p. 99.

Hab. MEXICO, Puebla, Yolos, Aculsingo (*Sallé*), Jalapa, Tehuacan (*Höge*).

Subfam. *CHLÆNIINÆ*.

CHLÆNIUS.

Chlænius, Bonelli, Observations Entomologiques, i. tabl. synopt. (1809); Chaudoir, Monographie des Chlénien, p. 10 (1876).

In his recent monograph of this numerous and beautiful genus, the late Baron Chaudoir enumerated 404 species as belonging to it. It is nearly restricted to continental lands and islands, the few species found in suboceanic islands, such as the Canaries, New Caledonia, and New Guinea, being common insects in the nearest large tract of land. In America the genus is well represented on the northern continent and in the basin of the La Plata; but the number of species which occur in the equatorial parts of the continent is very limited.

1. *Chlænius soginoides*.

Chlænius soginoides, Chaudoir, Monogr. Chlén. p. 74¹.

Hab. MEXICO, Guanajuato¹, city of Mexico (*Flohr, Dr. Palmer*).

2. *Chlænius validus*.

Omaseus validus, Chevrolat, Col. Mex. ii. no. 174¹.

Chlænius (Glyptoderus) validus, Chaudoir, Monogr. Chlén. p. 75².

Hab. MEXICO^{1 2}, Mirador (*Sallé*), Jalapa (*Höge*).

3. *Chlænius chrysopleurus*.

Chlænius chrysopleurus, Chaudoir, Bull. Mosc. 1856, ii. p. 276.

Chlænius (Glyptoderus) chrysopleurus, Chaudoir, Monogr. Chlén. p. 78¹.

Glyptoderus aurolimbatus, Laferté, Ann. Soc. Ent. Fr. 1851, p. 261.

Hab. MEXICO, Yucatan¹, Campeche (*Sallé*); NICARAGUA, Chontales (*Belt, Janson*).

Var. *cærulea*, Chaud. Monogr. p. 78¹ (*amabilis*, Dugès in coll. *Sallé*²).

Hab. Guanajuato² (*Dugès*), Puebla¹ (*Sallé*).

Var. *thoracis* plerumque ut in typo disco cupreo, sed elytris marginibus anguste viridi-cæruleis.

Hab. MEXICO, Oaxaca (*Höge*); GUATEMALA (*Sallé*), near the city (*Salvin*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, February 1882.

4. **Chlænius menevillei.** (Tab. III. fig. 3.)

Chlænius (Glyptoderus) Menevillei, Chaudoir, Monogr. Chlén. p. 77¹.

Glyptoderus Guerini, Ann. Soc. Ent. Fr. 1851, p. 261 (nom. præocc.).

Ch. chrysopleuro proxime affinis, sed differt elytris grossius et sparsius punctulatis striisque valde crenato-punctatis. Nitidior, niger, capite, thorace elytrisque marginibus læte viridi-æneis, thoracis disco nigro-cupreo nitido, latera versus splendide cupreo; elytris fortiter striatis, striis grosse transversim punctatis, interstitiis convexis nitidis subsparsim setifero-punctatis.

Long. 8 lin. ♂ ♀.

Hab. PANAMA (*Boucard*), Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Bolivia¹.

A specimen communicated by M. René Oberthür, doubtless compared with Chaudoir's type, was labelled as from Panama. The locality Bolivia is probably erroneous. The specimen figured is from Chiriqui.

5. **Chlænius cæruleicollis.**

Chlænius cæruleicollis, Chaudoir, Monogr. Chlén. p. 78¹.

Hab. MEXICO, Las Peras¹, Capulalpam, Puebla, Toluca (*Sallé*), Jalapa, La Parada (*Höge*).

6. **Chlænius aberrans.** (*Chlænius martinezi*, Tab. III. fig. 4.)

Ch. cæruleicollis multo major et magis elongatus, elytris elongato-ovatis, thorace relative parvo, cordato-quadrato, antice valde rotundato, postice sinuatim modice angustato angulis posticis rectis; elytris sulculo marginali apud humeros angulato; episternis prothoracis rugulosis, metathoracis grosse punctatis extus haud sulcatis; capite viridi-æneo, medio lævi, lateribus punctatis, collo depresso violaceo; thorace grosse discrete subrugulose punctato, violaceo, lateribus viridi-æneis; elytris acute sed haud profunde striatis, interstitiis subtiliter sparsim punctulatis, opacis, violaceis, limbo laterali viridi opaco; antennis orisque partibus piceo-rufis, pedibus nigro-piceis.

Long. 8¼ lin. ♂.

Hab. MEXICO (*Sallé*).

I have adopted the MS. name given to this species in the Chaudoir collection, now in the possession of M. René Oberthür. Chaudoir gave the name *Martinezi* to the same species in the Sallé collection.

7. **Chlænius scabricollis.**

Chlænius scabricollis, Chevrolat, Col. Mex. i. fasc. 2 (1833); Chaudoir, Monogr. Chlén. p. 96.

Hab. MEXICO, Tuxtla (*Sallé*).

8. **Chlænius sallæi.** (Tab. III. fig. 5.)

Chlænius sallæi, Chaudoir, Monogr. Chlén. p. 149.

Hab. MEXICO, Cordova (*Sallé*).

9. **Chlænius rodriguezi.**

Chlænius rodriguezi, Chaudoir, Monogr. Chlén. p. 152¹.

Hab. GUATEMALA, Coban¹ (*Sallé*), Capetillo (*Champion*).

10. **Chlænius leucoscelis.**

Chlænius leucoscelis, Chevrolat, Col. Mex. i. fasc. 4 (1834)¹; Chaudoir, Monogr. Chlén. p. 190.

Hab. MEXICO¹, Cordova, Izucar, Etlá, Capulalpam, Guanajuato (*Sallé*), Oaxaca (*Höge*); GUATEMALA, near the city (*Champion*).

11. **Chlænius chlorochrous.**

Chlænius chlorochrous, Chaudoir, Monogr. Chlén. p. 190¹.

Hab. MEXICO¹, Playa Vicente (*Sallé*); GUATEMALA, Rio Maria Linda, Panajachel (*Champion*).

12. **Chlænius ruficauda.** (Tab. III. fig. 7.)

Chlænius ruficauda, Chaudoir, Bull. Mosc. 1856, ii. p. 194¹.

Chlænius apicalis, Leconte, Ann. Lyc. N. York, v. p. 179 (1851)², nom. præocc.

Chlænius posticus, Leconte, Journ. Acad. Phil. iv. 1858, t. 1. f. 8².

Chlænius dimidiatus, Motschulsky, Etud. Ent. 1858, p. 157.

Hab. NORTH AMERICA, California².—MEXICO¹, Puebla (*Sallé*), Juquila, Oaxaca (*Höge*).

13. **Chlænius herbaceus.**

Chlænius herbaceus, Chevrolat, Col. Mex. ii. no. 188 (1835)¹; Chaudoir, Monogr. Chlén. p. 212¹.

Chlænius patruelis, Leconte, Ann. Lyc. N. York, iv. p. 435 (1848)².

Hab. NORTH AMERICA, Georgia².—MEXICO¹, Guanajuato (*Sallé*).

14. **Chlænius guatemalenus.** (Tab. III. fig. 6.)

Ch. cursori affinissimus, sed differt elytrorum interstitiis subgrosse punctatis. Supra viridi-æneus vel violaceus, thorace medio elytris versus suturam nigricantibus; antennis, partibus oris pedibusque flavo-testaceis; capite (media fronte excepta) et thorace grosse sparsim punctatis, hoc quadrato-cordato, prope angulos anticos angustato, versus basin sinuato, angulis posticis oblique truncatis; elytris elongato-ovalibus margine basali flexuoso, humeris angulatis, mox pone humeros ampliatis, profunde striatis striis subtiliter punctulatis, interstitiis grosse sparsim punctatis; abdomine utrinque modice punctulato.

Long. $7\frac{1}{2}$ lin.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Differs from *C. cursor* too widely in the punctuation of the elytral interstices to be referred to that species as a variety. *C. cursor* varies much in the convexity of the interstices of the elytra, M. Sallé's named examples and all those taken by Höge at Jalapa and Oaxaca having them distinctly convex. The species is also allied to *C. rodriguezi*, which is placed by Chaudoir in a different primary division of the genus, according to his complicated classification.

15. **Chlænius cursor.**

Chlænius cursor, Chevrolat, Col. Mex. ii. no. 168 (1835)¹; Chaudoir, Monogr. Chlén. p. 212².

Chlænius sparsus, Leconte, List of Col. New Species, 1863, p. 12³.

Hab. NORTH AMERICA, Lower California³.—MEXICO, Orizaba¹, Cordova, Tuxtla, Panistlahuca (*Sallé*), Guanajuato², Jalapa, Oaxaca (*Höge*).

16. **Chlænius orbis.**

Chlænius orbis, Horn, Trans. Am. Ent. Soc. 1871, p. 326¹; Chaudoir, Monogr. Chlén. p. 216.

Hab. NORTH AMERICA, Texas¹.—MEXICO, Oaxaca (*Höge*).

17. **Chlænius azurescens.**

Chlænius azurescens, Chaudoir, Monogr. Chlén. p. 220¹.

Hab. MEXICO, Orizaba¹, Playa Vicente (*Sallé*), Almolonga (*Höge*).

18. **Chlænius planipennis.** (Tab. III. fig. 8.)

Chlænius planipennis, Chaudoir, Monogr. Chlén. p. 220.

Hab. MEXICO, Juquila (*Sallé*).

19. **Chlænius tricolor.**

Chlænius tricolor, Dejean, Spec. Gén. Col. ii. p. 334¹; Chaudoir, Monogr. Chlén. p. 241.

Var. *Chlænius vigilans*, Say, Trans. Am. Phil. Soc. iv. p. 419 (1834)².

Chlænius chalybeipennis, Chevrolat, Col. Mex. i. fasc. 4 (1834)³.

Hab. NORTH AMERICA¹, northwards to Canada.—MEXICO^{1 2 3}, Guanajuato (*Dugès*, coll. *Sallé*), Oaxaca (*Sallé*, *Höge*), Almolonga (*Höge*); GUATEMALA (*Sallé*), Panajachel (*Champion*).

The species occurs in Mexico and Guatemala under two distinct colour varieties. In one, which prevails at Oaxaca and in Guatemala, the head and thorax are green; in the other, occurring chiefly near the capital and at Jalapa and Puebla, the same parts are of a rich coppery hue: some Jalapa specimens are intermediate in colour. The green variety is that described by Say as *Chlænius vigilans*.

20. **Chlænius melanarius.**

Chlænius melanarius, Dejean, Sp. Gén. Col. v. p. 658 (1831)¹; Chaudoir, Monogr. Chlén. p. 242.

Chlænius soccatus, Say, Trans. Am. Phil. Soc. iv. p. 419 (1834)².

Chlænius Chevrolati, Chevrolat, Col. Mex. ii. no. 171 (1835).

Var. *Chlænius violaceus*, Chevrolat, Col. Mex. ii. no. 170 (1835); Chaudoir, Monogr. Chlén. p. 242.

Hab. MEXICO^{1 2}, Guanajuato, Puebla, Toluca (*Sallé*), Hacienda de los Bleados (*Dr. Palmer*), Mexico city (*Sallé*, *Dr. Palmer*, *Höge*), Jalapa, Oaxaca (*Höge*).

The two forms (pale legs and black legs) occur together in the same localities.

21. **Chlænius obsoletus.**

Chlænius obsoletus, Leconte, Ann. Lyc. N. York, v. p. 180¹; Chaudoir, Monogr. Chlén. p. 244².

Hab. NORTH AMERICA, California¹.—MEXICO², Oaxaca (*Höge*); GUATEMALA (*Sallé*), Guatemala city (*Champion*); NICARAGUA (*Sallé*).

22. **Chlænius viridicollis.**

Chlænius viridicollis, Reiche, Rev. Zool. 1843, p. 37¹; Chaudoir, Monogr. Chlén. p. 244².

Hab. MEXICO², Etna (*Sallé*), Oaxaca (*Höge*).—SOUTH AMERICA, Colombia¹, Amazons².

23. Chlænius obscuripennis. (Tab. III. fig. 9.)

Chlænius obscuripennis, Chevrolat, Col. Mex. ii. no. 169 (1835); Chaudoir, Monogr. Chlén. p. 245.

Chlænius pauper, Chaudoir, Bull. Mosc. 1856, ii. p. 267.

Hab. MEXICO, Vera Cruz, Cordova, Tuxtla, Peras (*Sallé*), Jalapa (*Höge*); GUATEMALA (*Sallé*), San Joaquin, Balheu, Dueñas, Paso Antonio, Paraiso (*Champion*); NICARAGUA, Managua (*Sallé*).

24. Chlænius purpureus.

Chlænius purpureus, Chaudoir, Monogr. Chlén. p. 246.

Hab. MEXICO, Cordova (*Sallé*), Actopan (*Flohr*); NICARAGUA, Chontales (*Belt*).

25. Chlænius perplexus.

Chlænius perplexus, Dejean, Sp. Gén. Col. v. p. 655¹ (1831); Chaudoir, Monogr. Chlén. p. 237.

Chlænius circumcinctus, Say, Trans. Am. Phil. Soc. iv. p. 418 (1834)².

Chlænius virens, Chaudoir, Bull. Mosc. 1843, p. 753².

Chlænius poeyi, Chevrolat, Ann. Soc. Ent. Fr. 1863, p. 194³.

Hab. NORTH AMERICA, Louisiana².—MEXICO, Vera Cruz (*Höge*).—WEST INDIES, Cuba³; SENEGAL (by error)¹.

Relying on the type specimen, Chaudoir restored Dejean's name to this species, although his description, made from an immature individual and accompanied by an erroneous locality, is quite unrecognizable.

Subfam. OODINÆ.

OODES.

Oodes, Bonelli, Obs. Ent. i. tabl. synopt. (1809); Chaudoir, Bull. Mosc. 1857, iii. p. 25.

This well-known genus is widely distributed over temperate and tropical regions; but it is doubtful whether any species really belonging to it occurs in South America. About sixty species have been described; the following, although female examples only are at present known, is apparently a true *Oodes*, and the only one yet recorded from Mexico or Central America.

1. Oodes mexicanus.

Oodes mexicanus, Chevrolat, Col. Mex. ii. no. 102 (1834).

Stenocrepis mexicanus, Chevrolat, Munich Catalogus, Coleop. i. p. 234.

O. americano simillimus, sed magis convexus elytris que profundius striatis. Oblongus, in hoc genere valde convexus, niger, antennis, palpis tarsisque rufescentibus; thorace medio rotundato, dorso convexo; elytris oblongis, fortiter striatis, striola scutellari fortiter punctata, stria septima integra distincte punctulata, interstitiis convexis.

Long. 5½ lin. ♀.

Hab. MEXICO (*Sallé*).

STENOUS.

Stenous, Chaudoir, Bull. Mosc. 1857, iii. p. 39.

Oodes, Dejean (partim), Sp. Gén. ii. p. 379.

The group dismembered from the old genus *Oodes* under the above name by Chaudoir is exclusively American, temperate and tropical. Thirteen species have been described.

1. *Stenous duodecimstriatus*.

Oodes duodecimstriatus, Chevrolat, Col. Mex. ii. no. 173 (1835)¹.

Oodes humilis, Laferté, Ann. Soc. Ent. Fr. 1851, p. 270?

Hab. MEXICO, Toxpam¹, Cordova (*Sallé*), Vera Cruz (*Sallé*, Höge); GUATEMALA, Paso Antonio (*Champion*); NICARAGUA (*Sallé*).

2. *Stenous tibialis*. (Tab. III. fig. 10.)

Amara tibialis, Chevrolat, Col. Mex. i. fasc. 2 (1834).

Oodes tibialis, id. ibid. i. tabl.

Stenous tibialis, Chaudoir, Bull. Mosc. 1857, iii. p. 40¹.

Oodes femoralis, Chaudoir, Ann. Soc. Ent. Fr. 1835, p. 444.

Oodes chlorophanus, Erichson, Wieg. Archiv, 1847, i. p. 72².

Hab. MEXICO¹, Cordova (*Sallé*); GUATEMALA, Paso Antonio (*Champion*).—SOUTH AMERICA, Peru², Amazons; WEST INDIES, Cuba¹.

East-Peruvian examples differ in no respect from those of Mexico, except in the brighter and rather green metallic hue of the dorsal surface.

3. *Stenous gratiosus*.

S. tibiali quam maxime affinis et similis, differt præcipue thorace manifeste longiore, post medium leviter sed distincte sinuato-angustato; pedibus ut in *S. tibiali* albis, femoribus piceis.

Long. $4\frac{1}{2}$ – $4\frac{3}{4}$ lin. ♂ ♀.

Hab. MEXICO, Toxpam, Tuxtla (*Sallé*).

Very closely allied to *S. tibialis*, and difficult to distinguish from it by description. It is a longer insect, *S. tibialis* not exceeding 4 lines; and the thorax is distinctly different in shape, the sides having a long sinuation behind the middle, so that the hinder part appears a little narrower, and a slight appearance of dilatation is perceptible in the middle. In colours and in the striation of the elytra there is no difference. The surface is coppery brown, with the sides of thorax and elytra green; the tibiæ and tarsi are white, the femora pitchy black; the antennæ reddish, with the three basal joints paler. On the elytra the striæ 1–6 are strongly impressed and punctulated, 3–6 not reaching the base, and 2–6 obliterated before the apex; stria 7 is present, but very faint.

I have adopted the specific name which the insect bears in the *Sallé* collection.

4. **Stenous olivaceus.**

Stenous olivaceus, Bates, Proc. Zool. Soc. 1878, p. 589¹.

Hab. MEXICO¹, Cordova (*Sallé*), Vera Cruz (*Höge*); GUATEMALA, Paso Antonio (*Champion*).

Distinguished from the preceding by the partial disappearance of the 6th and the total obliteration of the 7th striæ of the elytra. The legs are wholly pitchy black. In the male the basal joint of the anterior tarsi is shorter and broader than in *S. tibialis* and *S. gratiosus*.

5. **Stenous elegans.**

Oodes elegans, Leconte, Ann. Lyc. N. York, v. p. 180¹.

Hab. NORTH AMERICA, California¹.—MEXICO, Puebla (*Sallé*).

STENOCREPIS.

Stenocrepis, Chaudoir, Bull. Mosc. 1857, iii. p. 45.

Restricted, as far as at present known, to Tropical America. About a dozen species have been described.

1. **Stenocrepis chalcas.** (Tab. III. fig. 12.)

Elongato-oblongus, niger, supra olivaceo-æneus, antennis, palpis tarsisque rufescentibus; thorace paullo ante basin leviter dilatato ibique quam elytra vix latiore, antice gradatim angustato; elytris parallelis, acute striatis, striis punctulatis, sexta recta, septima obsoleta.

Long. 5 lin. ♂.

Hab. MEXICO, Cordova (*Sallé*).

Differs from *S. leprieuri* in the sixth stria being nearly straight and not strongly flexuous*.

ANATRICHIS.

Anatrichis, Leconte, Trans. Amer. Phil. Soc. x. p. 391 (1853); Chaudoir, Bull. Mosc. 1857, iii. p. 21.

Oodinus, Motschulsky, Bull. Mosc. 1864, iv. p. 352.

Oodes (partim), Dejean, Sp. Gén. Col. v. p. 677.

This curious little genus appears to have its headquarters in Central America, extending northwards to Louisiana and southwards to the Amazons. Five or six species are known; but only two have been described.

1. **Anatrichis piceus.** (Tab. III. fig. 11.)

Oodinus piceus, Motschulsky, Bull. Mosc. 1864, iv. p. 353¹.

* In the Munich Catalogue, i. p. 234, two other Mexican species of this genus are mentioned, *S. humilis* and *S. striatella*, Laferté, Ann. Soc. Ent. Fr. 1851, pp. 270 & 272. These species, however, are not described, but merely enumerated with insufficient characters, in a synoptical table; they are wholly unrecognizable.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Torola, Paso Antonio (*Champion*); PANAMA, Obispo¹.—SOUTH AMERICA, Santarem Amazons (*Bates*).

Motschulsky's description is remarkably clear and accurate, with the exception that he seems to have mistaken the female for the male, and has consequently given an erroneous account of the dilatation of the anterior tarsi in the latter sex. The dilatation of the joints in the male resembles that of *Oodes*, the first joint being of the same length and nearly the same breadth as the second, but narrowed at the base. The species varies in size from 2 to $2\frac{3}{4}$ lines. The surface is impunctate and slightly shining in both sexes.

2. *Anatrichis alutaceus*.

Ovatus, piceo-niger, supra opacus, elytris subtilissime ac densissime punctulatis, antennis basi, partibus oris pedibusque fulvo-testaceis; thoracis marginibus (præcipue posticis) elytrorumque epipleuris piceo-rufis.
Long. $2\frac{3}{4}$ lin. ♀.

Hab. MEXICO, Cordova (*Sallé*).

Similar in form and colours to *A. piceus*, but the thorax decidedly longer and more narrowed towards the head, and the elytra with interstices minutely punctulate or shagreened; the striæ are also more sharply incised. In *A. piceus* the 1st and 2nd elytral striæ terminate at the base in a single large rounded ocellated foveola. In *A. alutaceus* there is only a vague depression in the same situation.

3. *Anatrichis longulus*.

Angustus, oblongus, nigro-piceus, nitidus, antennis, palpis pedibus piceo-rufis; thorace transversim quadrato, antice paullo magis quam postice angustato, angulis posticis obtusis, supra foveola utrinque basali brevi profunda; elytris oblongis, convexis, acute striatis, striis basin vix attingentibus, foveola rotunda prope basin striarum primæ et secundæ.
Long. $2\frac{1}{4}$ lin. ♀.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Although this species departs from the short oval form of most of its congeners, and is founded on the female only, there can be no doubt of its belonging to the genus, judging from the relative shortness of the 3rd antennal joint, the great length of the terminal joint of the maxillary palpi, and the prominent eyes.

Subfam. *LICININÆ*.

DICÆLUS.

Dicælus, Bonelli, Mém. Acad. Turin, 1813, p. 446.

This fine genus is one of the characteristic forms of the Coleopterous fauna of temperate North America; twenty-two species have been recorded, all from the United States. The following Mexican species is the first known to occur beyond the southern boundary of the States:—

1. *Dicælus flohri*.

"*D. flohri* oblongo-ellipticus, niger vix nitidus; capite minus robusto, collo angustiore; thorace antice paullulum angustato, lateribus vix rotundatis, omnino lævi; elytris striis omnibus obsoletis, seriebus punctorum suturali et marginali tantum exstantibus, carina humerali brevi, valde elevata

"Long. $9\frac{1}{2}$ -10 lin. ♂ ♀.

"*Hab.* MEXICO, San Angel (*Flohr*)."

Subdivision C. *Quadripalmati**.

Subfam. *ANISODACTYLINÆ*.

ANISOTARSUS.

Anisotarsus, Chaudoir, Bull. Mosc. 1837, vii. p. 41.

Eurytrichus, Leconte, Ann. Lyc. N. York, iv. p. 287 (1846).

As far as at present known, this genus is peculiar to America, North and South. The series of species allied to *Harpalus cupripennis* of the La-Plata basin and *H. æquilatus* of Chili belong to it; and the total number of species is very large.

1. *Anisotarsus brevicollis*.

Anisotarsus brevicollis, Chaudoir, Bull. Mosc. 1837, vii. p. 42.

Anisotarsus leviusculus, id. ibid. p. 43.

Hab. MEXICO, Alvarez Mountains, San Luis Potosi (*Dr. Palmer*), near the city (*Flohr*), Guanajuato, Puebla, Toluca, Orizaba (*Sallé*), Jalapa, Oaxaca (*Höge*).

A very common and widely distributed Mexican species, of elongate, moderately robust shape and black (generally dull silky-opaque) colour; the antennæ and legs are black or pitchy brown, with tarsi and extremities of the antennal joints sometimes dull tawny. The elytra are long relatively to the thorax, and rather strongly sinuated towards the apex, which latter is somewhat prolonged at the suture. From typical examples of both species cited above from the Chaudoir collection kindly communicated to me by M. René Oberthür, I find that they offer no difference, except a very slight one in the outline of the thorax. This part, as is usual in *Anisotarsus*, *Selenophorus*, and other genera of Harpalidæ, varies considerably in the degree of curvature of the sides: in some specimens the thorax is strongly rounded a little before the middle, with no sinuation near the obtuse hind angles; and in others it is nearly straight and sinuated before the angles. The elytra also vary a little in relative length. Most examples are dull coal-black; but others shine with a strong silky lustre, with the thorax glossy.

An extreme variety, apparently rare, found by Sallé at Orizaba and Jacalé, is more convex than the type, with relatively larger thorax and obsolete hind angles. One example has raised interstices; in the other they are flat as in the type.

* Bates, "Geodephagous Fauna of Japan," Trans. Ent. Soc. 1873, p. 258.

2. *Anisotarsus virescens*.

Harpalus virescens, Dejean, Sp. Gén. Col. v. p. 839.

Hab. MEXICO.

Dejean's type specimen, communicated to me by M. René Oberthür, is a male.

3. *Anisotarsus chloroderus*.

Subtus rufo-piceus, supra sericeo-nitens, capite thoraceque viridi-æneis, elytris cupreo-fuscis æneo tinctis; antennis (articulis 1^o-5^m plus minusve nigro maculatis), partibus oris pedibusque rufo-testaceis; thorace quam elytra distincte angustiore, transversim quadrato, paullo ante medium leviter rotundato-dilatato, deinde antice plusquam postice modice angustato, angulis posticis valde obtusis sed distinctis, supra impunctato, foveis basalibus elongatis, profundis; elytris oblongo-ovatis, apice paullulum oblique sinuatis, acute striatis, interstitiis subplanatis apud apicem multo angustioribus, sub lente subtilissime strigulosis, 3^o versus apicem unipunctato.

Long. 4 $\frac{3}{4}$ -5 lin. ♂ ♀.

Hab. MEXICO, Puebla, Cuernavaca (*Sallé*).

Distinguishable from *A. ocreatus* (besides its brighter metallic colours) by the form of the thorax, which is relatively much larger, more convex, more strongly rounded a little before the middle, and more narrowed towards the base, with the surface not perceptibly flattened towards the hind angles, which latter character is distinctive of *A. ocreatus* and its allied North-American species. It is so closely allied to *A. virescens*, Dej., that I have some doubt of its being distinct. The different colour of the elytra is almost its only distinction.

4. *Anisotarsus purpurascens*.

A. ocreato affinissimus, sed brevior, colore utriusque sexus purpurascenti-nigro-fusco, marginibusque concoloribus etc. Brevius oblongo-ovatus, piceo- vel nigro-fuscus, supra (præcipue elytris) purpurascens; antennis (articulis 2^o-6^m plus minusve nigro maculatis), palpis pedibusque melleo-flavis; thorace breviter transversim quadrato, medio paullulum rotundato dilatato, postice gradatim, antice citius sed paullo angustato, angulis obtusis, supra impunctato, marginibus posticis minus quam in *A. ocreato* explanatis, haud rufescentibus, foveolis basalibus paullo depressis; elytris haud sericeis, paullo fortius striatis, apice minus prolongatis, purpurascenti-fuscis subnitidis.

Long. 4-4 $\frac{1}{4}$ lin. ♂ ♀.

Hab. MEXICO, Orizaba (*Sallé*), Las Vigas (*Höge*).

Separated, not without some hesitation, from the variable *A. ocreatus*; but it seems constantly distinct by its shorter elytra, the absence of pale margins, the more rounded thorax, and the purplish pitchy-black colour in both sexes. The female also has not the strong sericeous lustre and the very feeble striation of *A. ocreatus*. The species bears the name *A. pæciloides*, Chevrolat, in the *Sallé* collection, which I have not adopted on account of its having been used in the very closely allied genus *Anisodactylus*.

5. *Anisotarsus ocreatus*.

Harpalus ocreatus, Say, Trans. Amer. Phil. Soc. 1834, iv. p. 433¹.

Hab. MEXICO¹, Guanajuato, Puebla, Cordova, Peras (*Sallé*), San Luis Potosi, Valle del Maiz (*Dr. Palmer*), Las Vigas, Oaxaca (*Höge*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Dueñas, Capetillo, Quezaltenango (*Champion*).

6. *Anisotarsus cyanippus*. (Tab. III. fig. 13.)

Robustior, convexior, nigro-piceus, supra violaceus, ♂ nitidus, ♀ opaca, obscurior; palpis (interdum labro), antennis (articulis basalibus plus minusve nigro maculatis) et tarsi testaceo-fulvis; capite brevi, oculis vix prominulis; thorace transverso, lateribus subæqualiter sat arcuatis, angulis posticis obtusis fere rotundatis, supra lævissimo, foveis basalibus latis fere bipartitis; elytris breviter oblongis, convexis, apice oblique sinuatis, simpliciter acute striatis, interstitiis planis, versus apicem angustis convexis, striisque paullo latioribus, 3^o post medium unipunctato.

Long. 5½–6 lin. ♂ ♀.

Hab. MEXICO, Cuernavaca (*Sallé*).

Var. Cyaneus, elytrorum interstitiis usque ad apicem planissimis.

Hab. MEXICO, Capulalpam (*Sallé*).

Labelled *Harpalus cyanellus*, Chaud. (MS.), in the Sallé collection, but a true Anisodactylid, with a tooth in the emargination of the mentum; and the name had already been used in the same genus. The variety with flattened elytral interstices is named *Harpalus agonoderus*, Chaud., in the Sallé collection. As other allied species (e. g. *A. mexicanus*) vary considerably in the degree of convexity of the interstices, I think this can only be an extreme form of *A. cyanippus*.

7. *Anisotarsus mexicanus*.

Harpalus Mexicanus, Dejean, Sp. Gén. Col. iv. p. 288¹.

Hab. MEXICO¹, Toluca, Puebla, Orizaba, Cordova, Yolos, Chiapas (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), Jalapa, Oaxaca (*Höge*), Alvarez Mountains (*Dr. Palmer*); GUATEMALA (*Sallé*), Cerro Zunil, Panajachel (*Champion*), Dueñas (*Salvin*); COSTA RICA, Volcan de Irazu (*Rogers*); PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).

The violet tint of the upper surface is often very faint, especially in the specimens from more southerly localities. In Mexico the elytral interstices are sometimes much flatter than the ordinary form described by Dejean. It appears to be a very common species in Mexico and Central America, and differs from the typical *Anisotarsi* in its compact and convex form.

8. *Anisotarsus lamprotus*.

A. mexicano proxime affinis, at differt elytris splendide ænescenti-cupreis. Convexus, capite thoraceque cyaneis, hoc magis transverso vel brevior angulisque posticis distinctis sed haud extantibus; elytris argute striatis, interstitiis paullulum convexis, septimo prope apicem (ut in *A. mexicano*) pluripunctato, quinto apice bipunctato; antennis, palpis et tarsi rufescentibus.

Long. 6½ lin. ♂.

Hab. MEXICO, Vera Cruz (*Sallé*).

This and the two preceding species belong but imperfectly to the genus, receding from the type in their more robust and convex form of body.

ANISODACTYLUS.

Anisodactylus, Dejean, Sp. Gén. Col. iv. p. 132; Horn, Proc. Amer. Phil. Soc. 1880, p. 162.

As defined by the authors above cited this genus will prove to be one of great extent and wide distribution. It abounds in species in Tropical Africa and the warmer parts of Asia, and is well represented in temperate North America and Europe. More than 100 species are known; but they much require revision.

1. *Anisodactylus rotundangulus*. (Tab. III. fig. 14.)

Anisodactylus rotundangulus, Bates, Proc. Zool. Soc. 1878, p. 589.

“Elongatus, niger, modice nitidus, pedibus piceis, antennis palpisque piceo-rufis; thorace lateribus arcuatis, angulis posticis late rotundatis, foveis posticis latis, modice impressis; elytris apice haud sinuatis, supra simpliciter striatis, impunctatis.

“Long. 7-7½ lin. ♂ ♀.”

Hab. MEXICO, near the capital (*Flohr*), Orizaba (*Sallé*), Oaxaca (*Höge*).

The terminal spur of the anterior tibiæ is dilated interiorly near the base; and the first joint of the posterior tarsi shorter than the second and third taken together.

2. *Anisodactylus anthracinus*.

Harpalus anthracinus, Dejean, Spec. Gén. Col. iv. p. 369¹ (1829).

Anisodactylus dilatatus, Say, Trans. Amer. Phil. Soc. iv. 1834, p. 431².

Hab. MEXICO^{1 2}, Guanajuato (*Dugès, coll. Sallé*), Toluca (*Sallé*), Hacienda de Bleados, San Luis Potosi (*Dr. Palmer*), near the city (*Flohr*), Jalapa (*Höge*).

This species, which resembles in form a large *Oodes*, varies much in the outline of the thorax. The extreme forms are, on the one hand, those in which this part is widest in front, before the middle, and, on the other, those in which it is curvilinearly narrowed from the base to the anterior angles. Say described the intermediate state, in which the sides are regularly but moderately arcuated. The *anthracinus* of Dejean, of which I have examined the type, has the thorax anteriorly narrowed, but less so than an extreme variety named *amaroides* (Sturm) in the Sallé collection. A variety narrower in all its parts bears the MS. name of *subangustior* in M. Oberthür's collection. All forms were found together near Mexico by Mr. Flohr.

NOTIOBIA.

Notiobia, Perty, Del. An. Art. Bras. p. 14 (1830).

Rhagodactylus, Chaudoir, Ann. Soc. Ent. Fr. 1835, p. 431.

A genus peculiar to Tropical America, distinguished from its allies by the great size and prominence of its eyes. Most of the species are further distinguished by their

short and anteriorly much rounded thorax and the peculiar sculpture of their elytra. Fifteen species have previously been described.

1. *Notiobia concolor*.

Notiobia concolor, Putzeys, Mitth. Münch. ent. Vereins, 1878, p. 72¹.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).—SOUTH AMERICA, Colombia¹.

2. *Notiobia obscura*.

N. concolori proxime affinis et similis. Piceo-fusca, supra plus minusve obscure viridi-ænea, subcyanea vel purpurea, pedibus elytrorumque epipleuris piceo-rufis, antennis fulvis basi fusco-maculatis; oculis modice prominentibus; thorace transversim quadrato, minime cordato, ante medium paullulum rotundato, angulis posticis perparum salientibus, ante angulos lateribus leviter sinuatis, basi supra utrinque lævi, planato; elytris oblongis, convexis, apice perparum sinuatis, striis subtilibus, interstitiis planis, exterioribus versus apicem alutaceo-opacis.

Long. $4\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Cordova, Capulalpam, Toxpam, Playa Vicente (*Sallé*).

Var. *virens* (Chaud. MS.). Corpore supra toto lætius viridi-æneis, pedibusque pallidioribus, elytrorum interstitiis exterioribus haud alutaceis.

Hab. MEXICO, Cordova (*Sallé*).

The variety named *virens* (Chaud.) in the Sallé collection has nearly the same-shaped thorax as the type form, the hind angles being only a little more salient. According to Putzey's description, this is a character of the *N. similis* of Colombia; and I am not sure whether the two species are really different. In one female example of *N. obscura* from Playa Vicente the hind angles, though distinct, are scarcely prominent, and the elytral interstices a little more convex; this may be a sexual character.

3. *Notiobia incerta*.

N. obscuræ similis, at differt thoracis angulis posticis apice nullo modo prominentibus, subrotundatis. Supra viridi-ænea, nitida, palpis, pedibus antennisque piceo-fulvis, his basi nigro-maculatis; oculis distincte majoribus; thorace transverso, antice rotundato-dilatato, postice parum angustato, angulis subrotundatis, margine basali postice versus angulum conspicue elevato; elytris grossius striatis, interstitiis convexis; epipleuris vel nigris vel fulvis (immaturis?).

Long. $4\frac{3}{4}$ lin.

Hab. NICARAGUA, Chontales (*Belt, Janson*).

4. *Notiobia pallipes*.

Subgracilis, supra ænea (capite thoraceque interdum viridi-æneis), nitida; antennis, palpis pedibusque flavo-testaceis; oculis modice prominentibus; thorace transverso, antice sat rotundato-dilatato, postice recte (nullo modo sinuatim) angustato, angulis posticis distinctis fere rectis sed haud productis; elytris grosse striatis, interstitiis paullulum convexis, juxta apicem multo angustatis striisque dilatatis, apud dorsum anterius area interstitia 4^m-6^m tegente depressa.

Long. 4- $4\frac{1}{4}$ lin. ♂ ♀.

Hab. MEXICO, Cordova (*Sallé*), Jalapa, Oaxaca (*Höge*).

Var. *subaurata*. Lætius aurato-ænea, thoraceque angulis posticis paullulum magis acutis.

Hab. GUATEMALA, Capetillo (*Champion*).

In this species the finely alutaceous sculpture of the lateral interstices is scarcely

perceptible and is variable in extent. The variety *subaurata* rests at present on a single male example.

5. *Notiobia melæna*.

Nigra, subtus interdum castanea (an immatura?), supra leviter cyaneo tincta; antennis tarsisque fulvis, his basi nigro maculatis, foveis frontalibus profundis, oculis modice prominentibus; thorace modice transverso, antice rotundato-dilatato, postice fortiter angustato, ante angulos posticos rectos leviter sinuato, foveis basalibus latis, profundis; elytris apice oblique (♀ magis profunde) sinuatis, grosse striatis, interstitiis passim convexis, exterioribus ♀ sericeo-subopacis. ♂ tarsis quatuor anticis ut in *N. concolori* minus dilatatis.

Long. 5 lin. ♂ ♀.

Hab. MEXICO, Cordova (*Sallé*).

6. *Notiobia æquata*.

N. melænae coloribus simillima, differt tantum elytrorum interstitiis planissimis striis subtilibus, angulisque thoracis posticis productis acutis; cæteris ut in *N. melæna*.

Long. 5 lin. ♀.

Hab. MEXICO, Cordova (*Sallé*).

The difference in the convexity of the elytral interstices is so great between this and the preceding that, in the absence of connecting varieties, it is necessary to treat them as distinct.

7. *Notiobia cupreola*. (Tab. III. fig. 16.)

Notiobia cupreola, Bates, Proc. Zool. Soc. 1878, p. 590.

“Angustior, polita, nigro-ænea, elytris cupreo-violaceis; antennis (articulis 1^o-3^m nigris exceptis), labro, palpis et tarsis fulvo-testaceis; thorace lateribus antice valde rotundatis, postice vix sinuatim angustato, angulis posticis fere rectis, supra impunctato, foveis basalibus latis vagis; elytris (♂ ♀) apice oblique leviter sinuatis, supra striatis, ♀ subtilissime alutaceis sed politis, interstitio 3^o postice unipunctato.

“Long. 4 $\frac{3}{4}$ lin. ♂ ♀.

“*Hab.* COSTA RICA, Irazu, alt. 6000-7000 feet (*Rogers*).”

8. *Notiobia championi*.

Elongata, capite thoraceque viridi-æneis; elytris purpureo-fuscis opacis, lævibus, sutura splendide cuprea, subtilissime striatis, interstitiis planissimis, apice oblique sinuatis; oculis magnis modice prominentibus; thorace quam elytra vix angustiore, lateribus arcuatis, postice magis quam antice angustato, angulis posticis obtusis nullo modo productis; pedibus nigris, tarsis fulvescentibus; antennis fulvis, articulis 3 basalibus nigris.

Long. 6 $\frac{1}{2}$ lin. ♀.

Hab. PANAMA, Volcan de Chiriqui, alt. 2000 to 3000 feet (*Champion*).

This beautiful species is conspicuously different from all others previously known by its smooth opaque elytra; the male is doubtless differently sculptured.

9. *Notiobia leiroides*.

Notiobia leiroides, Bates, Proc. Zool. Soc. 1878, p. 590¹.

“Latior, supra æneo-olivacea, labro, antennis basi, palpis et pedibus rufis; thorace valde transverso, medio rotundato-dilatato, postice angustato, angulis posticis rectangularibus; elytris apice paullulum sinuatis,

regulariter striatis, interstitiis æqualibus, apicem versus angustioribus, marginalibus subopacis, tertio postice unipunctato, margine apicali testaceo.

“Long 7 lin. ♀.”

Hab. MEXICO, Vera Cruz (*Boucard*¹), Cuernavaca (*Sallé*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Zapote (*Champion*).

Var. thorace antice paullo minus angustato, angulisque anticis a collo magis remotis.

Hab. GUATEMALA, Zapote (*Champion*); NICARAGUA, Chontales (*Janson*).

Described originally from a single female Mexican example. A longer series from various localities prove that the species varies in colour from olivaceous green to coppery æneous. It is an elongate, rather parallel-sided species, with the apex of the elytra very obliquely and slightly sinuated in both sexes and the interstices of the elytra differing little in convexity, except near the apex, where they are narrowed in the usual way. The legs and antennæ are fulvous. The thorax is much narrowed from the anterior dilatation to the neck, except in two examples described above as a var., and which I can see little reason for separating specifically from the rest.

10. *Notiobia parilis*.

Notiobia parilis, Bates, Proc. Zool. Soc. 1878, p. 590¹.

“Glabra, capite thoraceque chalybeis, elytris cupreo-violaceis, subtus nigra, antennis, pedibus antennisque interdum piceo-rufis; thorace valde transverso, ante medium late rotundato, deinde sinuatim angustato, angulis posticis rectis, anticis omnino rotundatis; elytris utroque sexu politis, sulcato-striatis, interstitiis omnibus valde convexis, apice sinuatis (nec dentatis).

“Long. 6½ lin. ♂ ♀.”

Hab. MEXICO, Cordova, Playa Vicente, Tuxtla (*Sallé*); NICARAGUA, Chontales (*Belt*¹).

Three examples of this distinct species in the Sallé collection bear severally the MS. names of *Notiobia rana* and *rufipalpis*, Chevrolat.

11. *Notiobia umbrata*.

Latiuscula, brevis, minus convexa, ænea, nitida, antennis, partibus oris pedibusque fulvo-testaceis, ventre lateribus fulvescente; capite brevi, lato, foveis frontalibus profundis, tubere laterali supra antennas fulvo; thorace brevi, valde transverso, paullo ante medium rotundato-dilatato, postice oblique modice angustato, angulis posticis rectis, basi paullulum ruguloso-punctato; elytris apice utroque sexu fortiter emarginatis, sed angulo superiore nullo modo dentiformi, dorso versus basin late depresso, grosse striatis, interstitiis convexis in depressione dorsali et prope apicem profundius striatis et interstitiis angustioribus, striola scutellari longissima usque ultra mediam elytrorum longitudinem prolongata; ♂ umbra posteriore fulvescente interstitia 5^m–9^m tegente; ♀ toto disco obscuriore, opaco.

Long. 4–4¼ lin. ♂ ♀.

Hab. GUATEMALA, Zapote (*Champion*).

Distinguished from all the allied species by the extraordinary length of the accessory stria near the scutellum. The male tarsi have the usual dilated joints of great width. The opaque fulvous patch is extended along the 9th (marginal) interstice to the shoulder, and covers a large but diminishing portion of the 8th to the 5th and the extreme apices of the 4th–2nd interstices.

12. *Notiobia limbipennis*.

Notiobia limbipennis, Bates, Proc. Zool. Soc. 1878, p. 590.

“Subcupreo-ænea, nitida; thorace valde transverso, medio rotundato-dilatato, postice modice angustato, angulis posticis vix rectangulis; elytris oblongo-ovatis, apice fortiter sinuatis et extus dentatis, profunde striatis, limbo laterali (apicem versus latiore) alutaceo subtestaceo-opaco, fovea etiam lata antico-discoidali paullo alutaceo-opaca, interstitio tertio postice unipunctato; antennis, palpis et pedibus rufo-piceis.

“Long. $5\frac{1}{2}$ lin. ♂.

“*Hab.* Chontales, Nicaragua (*Belt*).”

13. *Notiobia sinuessa*.

N. limbipenni proxime affinis, paullo minor, saturatius fusco-cuprea elytrorumque apice ante sinum haud dentatum. Brevis, dilatata, minus convexa, fusco-cuprea, æneo tincta, palpis, antennis pedibusque rufo-piceis; capite brevi et lato, oculis magnis; thorace valde transverso, angulis posticis distinctis fere rectis; elytris apice utroque sexu profunde sinuatis, angulo superiore fere rotundato, dorso antico utrinque late depresso ibique et lateribus versus apicem leviter alutaceo-opacis, fortiter (apicem versus profundius) striatis, striola scutellari elongata versus striam secundam curvata.

Long. $5-5\frac{1}{4}$ lin. ♂ ♀.

Hab. GUATEMALA, Zapote (*Champion*).

Very closely allied to *N. limbipennis*, but distinguished by its smaller size, darker coppery or brassy-brown colour (which is not changed to tawny on the alutaceous patches of the elytra), and by the upper end of the elytral sinuation not forming a sharp angle.

14. *Notiobia disparilis*. (Tab. III. fig. 15, ♀.)

Notiobia disparilis, Bates, Proc. Zool. Soc. 1878, p. 589.

“Æneo-cuprea (elytris ♀ cupreo-fuscis), glabra; epistomate, labro, palpis, antennis et pedibus piceo-rufis; thorace valde transverso, ante medium late rotundato, deinde vix sinuatim angustato, angulis posticis rectis, anticis omnino rotundatis, supra impunctato, fovea basali utrinque magna irregulari, subrugata; elytris thorace basi latioribus, apice profunde sinuatis, supra (♂) fortiter striatis, interstitiis dorso subplanis, duobus marginalibus alutaceo-opacis; ♀ haud striatis, opacis, sutura costisque tribus elevatis nitidis.

“Long. 6-7 lin. ♂ ♀.

“*Hab.* Chontales, Nicaragua (*Belt*).”

The upper edge of the elytral sinuation is sharply angulated, almost dentiform.

Subfam. *HARPALINÆ*.

HARPALUS.

Harpalus, Latreille, Hist. Nat. viii. p. 325 (1804).

About 400 species have been described of this well-known genus; it is beyond a doubt, however, that many of these do not really belong to it, many authors having followed the example of Dejean by describing species without any attempt to verify the

generic characters. The genus will probably prove to be nearly confined to the Palæarctic and Nearctic Regions. A few species, apparently true *Harpali*, are found at the Cape of Good Hope; but all those described as *Harpali* from tropical South America or Australia that I have been able to examine belong to other genera. The following species occur in Mexico.

1. *Harpalus mexicanus*.

Harpalus mexicanus, Chaudoir, Bull. Mosc. 1837, vii. p. 46.

Hab. MEXICO.

Resembles *H. faunus*, Say, of the United States. The type specimen, obligingly communicated by M. René Oberthür, represents a species quite different from any in the large collections of M. Sallé and Herr Höge.

2. *Harpalus platyderus*.

Elongato-oblongus, modice convexus, niger, palpis, antennis (basi excepta) tarsisque fulvescentibus; capite ovato, lævi, oculis vix prominentibus; thorace elongato, lateribus modice arcuatis antice paullo citius quam postice curvatis, angulis rotundatis, dorso lævi, foveis basalibus obsoletis; elytris apice oblique paullo sinuatis, argute æqualiter striatis, interstitiis subplanis absque punctis.

Long. $5\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, San Antonio de Arriba, Orizaba (*Sallé*); Las Vigas (*Höge*).

I have adopted the name given to this remarkable *Calathus*-like species by Chaudoir in the Sallé collection.

3. *Harpalus hebescens*.

H. platytero quoad formam simillimus, sed dimidio minor, palporumque articulo ultimo apice haud attenuato, elongato-ovato truncato. Niger, subnitidus, antennis, palpis et tarsis piceo-fulvis; capite foveis rotundatis, oculis parum prominentibus; thorace magno, lateribus arcuatis sed antice paulo magis quam postice angustato, angulis anticis vix productis posticis rotundatis, supra lævi, foveis basalibus distinctis sed haud profundis; elytris apice late rotundatis, subfortiter haud oblique sinuatis, margine basali utrinque arcuato, dorso striatis, interstitiis paullulum elevatis impunctatis.

Long. $4\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Capulalpam (*Sallé*).

4. *Harpalus alienus*.

Harpalus alienus, Bates, P. Z. S. 1878, p. 591¹.

“Oblongus, modice convexus, niger nitidus (♀ elytris sericeo-opacis), pedibus piceis, antennis palpisque rufo-piceis, illis articulis 2^o-4^m basi nigris; thorace transversim quadrato, postice plusquam antice angustato, lateribus rotundatis, angulis posticis obtusis, impunctato, basi coriaceo, fovea utrinque late impressa; elytris apice (♂ ♀) sinuatim subtruncatis, fortiter simpliciter striatis, interstitiis paullo convexus, 3^o postice unipunctato.

“Long. $5\frac{1}{4}$ -6 lin. ♂ ♀.”

Hab. MEXICO, near the capital (*Flohr*¹), San Luis Potosi (*Dr. Palmer*), San Antonio de Arriba, Toluca (*Sallé*), Oaxaca (*Höge*).

5. *Harpalus amputatus*.

Harpalus amputatus, Say, Trans. Amer. Phil. Soc. iv. 1834, p. 432¹.

Hab. NORTH AMERICA to North-western States¹ and Hudson's Bay.—MEXICO, near the capital (*Sallé, Flohr*), Puebla (*Sallé*), Jalapa (*Höge*).

6. *Harpalus æneus*.

Carabus æneus, Fabr. Syst. Ent. p. 245.

Harpalus æneus, Latreille et auctor. omn.

Hab. MEXICO, Toxpan (*Sallé*).—EUROPE and NORTHERN ASIA.

There is one example of this common European *Harpalus* in the Sallé collection; it was doubtless an importation.

7. *Harpalus liolus*.

Gracilis, niger nitidus leviter opalescens, palpibus, antennis pedibusque rufescentibus; capite ovato, oculis minime prominentibus, mandibulis elongatis acutis, foveis frontalibus vix impressis; thorace elongato-quadrato, postice gradatim sat angustato, lateribus ante angulos posticos sinuatis, margine basali medio late sinuato, versus angulos oblique curvato, angulis ipsis extantibus, supra lævissimo; elytris minime convexis, quam thorax anticus haud latioribus, apice oblique sinuatis, subpunctato-striatis, interstitiis planis absque punctis, striola scutellari brevi; pedibus parum robustis, setosis, tibiis anticis extus haud spinosis. ♂ tarsis dilatatis normalibus.

Long. 3½ lin. ♂.

Hab. MEXICO (*coll. Oberthür*).

I have described this curious and interesting little species from a specimen in M. Oberthür's collection, adopting the MS. name given to it by Chaudoir, who erroneously considered it an *Anisotarsus*. In facies it resembles a small *Pterostichus*; but it has all the essential characters of a true *Harpalus*, having plurisetose penultimate joint of the labial palpi, dentated mentum, and biseriately squamose dilated palms to the four anterior tarsi.

SELENOPHORUS.

Selenophorus, Dejean, Sp. Gén. Col. iv. p. 80; Putzeys, Stett. ent. Zeit. Jahrg. 39 (1878) p. 3.

A genus, as at present defined, peculiar to America. In a recent monograph M. Putzeys described 111 species as belonging to it, one of which, however, more properly belongs to *Discoderus*. The genus is most abundant in intertropical latitudes; but a few are found in the temperate zone, both north and south.

1. *Selenophorus pyritosus*. (Tab. III. fig. 18.)

Selenophorus pyritosus, Dej. Sp. Gén. Col. iv. p. 84¹; Putzeys, Stett. ent. Zeit. 1878, p. 11².

Hab. MEXICO², Cuernavaca, Playa Vicente, Yolos, Puebla, Tlacotalpam, Putla (*Sallé*), Oaxaca (*Höge*); HONDURAS (*Sallé*); GUATEMALA² (*Sallé*), San Gerónimo, Rio Naranjo (*Champion*); NICARAGUA (*Sallé*); PANAMA, Colon (*Janson*), Volcan de Chiriqui, alt. 2000 to 3000 feet (*Champion*).—WEST INDIES, Cuba¹.

The Chiriqui examples have the elytral striæ often more distinctly punctured than those from more northern localities.

2. *Selenophorus æquinoctialis*.

Selenophorus æquinoctialis, Dejean, Sp. Gén. Col. iv. p. 85¹; Putzeys, Stett. ent. Zeit. 1878, p. 24².

Hab. MEXICO², Yolos (*Sallé*), Las Vigas, Oaxaca (*Höge*); GUATEMALA, Paraiso (*Champion*).—SOUTH AMERICA, Pará¹.

Mexican and Guatemalan examples agree precisely with Dejean's description.

3. *Selenophorus yucatanus*.

Selenophorus yucatanus, Putzeys, Stett. ent. Zeit. 1878, p. 24.

Hab. MEXICO, Yucatan.

According to an example of this species sent to me by the author himself, this is a form extremely near *S. stigmatosus* of the United States and *S. æquinoctialis*, having, like them, curiously abbreviated and shortened joints to the hind tarsi. In his synoptical table, also, he places the species in the group having short hind tarsi; but in his description he compares the elytra with those of *S. seriatoporus*; and an example communicated to me by M. René Oberthür from the Chaudoir collection with the name *yucatanus*, Chd., answers to this description. Chaudoir's species is extremely near Guatemalan specimens of *S. seriatoporus*, but has a much narrower thorax.

4. *Selenophorus alternans*.

Selenophorus alternans, Dej. Sp. Gén. Col. iv. p. 86¹; Putzeys, Stett. ent. Zeit. 1878, p. 13².

Selenophorus lineatopunctatus, Dej. Sp. Gén. iv. p. 86³; Putzeys, Stett. ent. 1878, p. 13.

Hab. MEXICO².—WEST INDIES, San Domingo².—SOUTH AMERICA, Venezuela² and Cayenne³ to Brazil^{1 2} and Uruguay².

I do not find any example of this common South-American species in the large Mexican collections either of M. Sallé or Herr Höge.

5. *Selenophorus sallæi*.

Selenophorus Sallæi, Putzeys, Stett. ent. Zeit. 1878 (May), p. 17¹.

Selenophorus tenuistriatus, Bates, Proc. Zool. Soc. 1878 (May) p. 591².

Hab. MEXICO, Cordova, Guanajuato, Capulalpam (*Sallé*), near the city (*Sallé, Flohr*²), Las Vigas, Oaxaca (*Höge*); GUATEMALA, Paraiso (*Champion*).

6. *Selenophorus rodriguezi*.

Selenophorus Rodriguezi, Putzeys, Stett. ent. Zeit. 1878, p. 22.

Hab. GUATEMALA.

7. *Selenophorus seriatoporus*.

Selenophorus seriatoporus, Putzeys, Stett. ent. Zeit. 1878, p. 23¹.

Hab. MEXICO, Cordova¹, Yolos (*Sallé*), Oaxaca (*Höge*); GUATEMALA, near the city, San Gerónimo, El Reposo, Paso Antonio (*Champion*).

Guatemalan examples are very generally shorter in form and more bronzed in colour than those of Mexico. The difference is not sufficiently marked or constant for specific distinction or for a well-defined race.

8. *Selenophorus callistichus*.

Selenophorus callistichus, Bates, Proc. Zool. Soc. 1878, p. 591¹.

“Oblongo-ovatus, elongatus, minus convexus, cupreo-æneus; antennis basi pedibusque flavo-testaceis; thorace antice gradatim, versus basin citius, angustato, angulis posticis rotundatis, basi tota haud profunde punctulata; elytris apice sinuatis, supra fortiter striatis, interstitiis alternis punctis numerosis rotundatis seriatim impressis; tarsis posticis gracilibus, elongatis; tibiis et tarsis absque spinis fortibus.

“Long. 4½ lin. ♂ ♀.”

Hab. PANAMA, Obispo (*Salvin*¹), Volcan de Chiriqui, alt. 2000 to 3000 feet (*Champion*).

Distinguished from *S. seriatoporus*, particularly the typical Mexican form, by its richer metallic colour and the larger and more conspicuous punctures of the elytra.

9. *Selenophorus chiriquinus*.

S. seriatoporo et *callisticho* affinis, sed multo minor, lætius æneus, haud sericeo-nitens, thoraceque basi grossius punctato. Æneus, antennis basi pedibusque flavo-testaceis; thorace lateribus modice æqualiter arcuatis, tota basi subgrosse et crebre punctata, angulis anticis haud productis, deflexis, posticis rotundatis; elytris striatis, punctis seriatis grossis, interstitiis planis versus apicem multo angustioribus et convexioribus, 5° et 7° ante apicem conjunctis, 6° multum abbreviato; tarsis posticis elongatis.

Long. 3 lin. ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui, David, Caldera (*Champion*).

10. *Selenophorus subsinuatus*.

Selenophorus subsinuatus, Putzeys, Stett. ent. Zeit. 1878, p. 31¹.

Hab. MEXICO, Cordova¹, Playa Vicente, Yolos (*Sallé*), Jalapa, Oaxaca (*Höge*); GUATEMALA, San Gerónimo, La Tinta, Dueñas, Rio Naranjo, Paraiso (*Champion*); NICARAGUA, Chinandega (*Sallé*); COSTA RICA, Cache (*Rogers*).

The form of the thorax varies greatly in the long series I have examined of this species; the hind angles are sometimes very obtuse, especially in a few of the Guatemalan examples; but the same form occurs in Oaxaca specimens, and it is impossible to separate them into species or local varieties.

11. *Selenophorus striatopunctatus*.

Selenophorus striatopunctatus, Putzeys, Stett. ent. Zeit. 1878, p. 33¹.

Hab. MEXICO, Chiapas¹, Cordova (*Sallé*), Oaxaca (*Höge*).—WEST INDIES¹.

12. Selenophorus flavipes.

Selenophorus flavipes, Putzeys, Stett. ent. Zeit. 1878, p. 39¹.

Hab. MEXICO, Cordova (*Sallé*¹).

13. Selenophorus semirufus.

S. rufulo similis et affinis, sed multo major, sanguineus vel castaneo-rufus, abdomine, metathorace elytrisque (epipleurisque solum exceptis) nigris; thorace convexo, medio quam elytra latiore, lateribus arcuatis, angulis anticis productis, posticis subrotundatis, basi ruguloso-punctulata; elytris apice vix sinuatis, apud suturam obtuse conjunctim rotundatis, dorso sericeo-nitentibus, argute subtiliter striatis, interstitiis planis 3^o-5^m et 7^o (juxta strias) conspicue pluripunctatis, omnibus versus apicem angustioribus striisque latioribus, striola scutellari elongata.

Long. 3 $\frac{3}{4}$ -4 $\frac{1}{4}$. ♂ ♀.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

14. Selenophorus assimilis.

Selenophorus assimilis, Putzeys, Stett. ent. Zeit. 1878 (January), p. 44¹.

Selenophorus mitis, Bates, Proc. Zool. Soc. 1878 (May), p. 591².

Hab. MEXICO, Oaxaca¹, Parada, Capulalpam (*Sallé*), Jalapa, Oaxaca (*Höge*), Mexico city (*Flohr*²); GUATEMALA (*Sallé*), near the city, San Gerónimo (*Champion*).

Distinguished by M. Putzeys by very slight and uncertain characters from the United-States *S. gagatinus*, Dej.

15. Selenophorus tarsalis. (Tab. III. fig. 23.)

Selenophorus tarsalis, Putzeys, Stett. ent. Zeit. 1878, p. 49¹.

Hab. MEXICO, Cordova¹, Jalapa (*Sallé*), Las Vigas, Oaxaca (*Höge*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA (*Sallé*), near the city, San Gerónimo, Balheu, San Isidro (*Champion*); COSTA RICA, Irazu (*Rogers*).

16. Selenophorus splendidus. (Tab. III. fig. 19.)

Selenophorus splendidus, Putzeys, Stett. ent. Zeit. 1878, p. 64¹.

Hab. MEXICO¹, Cordova, Yolos (*Sallé*); GUATEMALA¹.—SOUTH AMERICA, Colombia¹.

A specimen from Yolos, which I refer to this species, on account of the thorax narrowing towards the head, differs from the type in colours, being brassy green with opalescent lustre. It seems intermediate between *S. splendidus* and *S. tarsalis*.

17. Selenophorus quadricollis.

Selenophorus quadricollis, Putzeys, Stett. ent. Zeit. 1878, p. 55¹.

Hab. MEXICO¹; GUATEMALA, San Juan, Tamahu (*Champion*).

Varies in the depth of the elytral striæ; in individuals with deep striæ the punctures are scarcely visible.

18. *Selenophorus punctatulus*.

Selenophorus punctatulus, Putzeys, Stett. ent. Zeit. 1878, p. 65¹.

Hab. MEXICO, Minas Viejas (*Dr. Palmer*), Yucatan (*Pilate*)¹.

19. *Selenophorus crassiusculus*.

Selenophorus crassiusculus, Putzeys, Stett. ent. Zeit. 1878, p. 70¹.

Hab. MEXICO, Oaxaca (*Sallé*¹, *Höge*).

In form of thorax resembles *Discoderus arcuatus*; but the male has the four anterior tarsi normally dilated, and furnished with squammules in double series beneath.

20. *Selenophorus curvipes*.

Selenophorus curvipes, Putzeys, Stett. ent. Zeit. 1878, p. 70¹.

Hab. MEXICO ?¹.

This species, unknown to me, must approach the genus *Discoderus* still more closely than the foregoing. According to the description, both the hind and middle tibiae are arcuated.

21. *Selenophorus valgus*.

S. crassiusculo brevior et latior. Breviter oblongus, supra æneus nitidus, palpis, antennis et tarsis fulvis; thorace relative magno, convexo, lateribus fortiter et regulariter arcuatis, angulis posticis fere rotundatis, supra lævi; elytris apice sinuatis, grosse striatis, striis subpunctulatis, interstitiis paullo convexis, 2° angusto, punctis majoribus in striis 2^a, 5^a et 7^a sitis, conspicuis. ♂. Tarsi anteriores quatuor modice dilatatis, articulis brevibus triangularibus, plantis (1^a excepta) squamatis; tibiis intermediis fortiter, posticis paullulum arcuatis.

Long. 4¼ lin. ♂.

Hab. COSTA RICA, Volcan de Irazu (*Rogers*).

Apparently closely allied to *S. curvipes*; without the scaly clothing of the soles of the male tarsi (which appears to be scarcely so regular as in the typical *Selenophori* and in *Harpalus*), I should have placed this species in *Discoderus*. I have seen one example only.

DISCODERUS.

Discoderus, Leconte, Trans. Am. Phil. Soc. x. (1853), p. 381; Horn, Proc. Am. Ent. Soc. ix. (1881) pp. 177, 178.

Selenophorus (partim), Putzeys, Stett. ent. Zeit. 1878, p. 70.

This curious genus seems peculiar to North America, about half the described species being found in the United States, and half in Mexico; but the genus *Anisocnemus* of Venezuela is very closely allied to it. In the typical species, as Dr. Horn states, the male has a few squammules on the soles of the dilated tarsi. But the Mexican species appear to be destitute of squammules. The tarsal joints in the female are bordered

(like the edge of the tibiæ) with short spinules without admixture of setæ. The middle tibiæ are curved, in some of the species to an extraordinary degree. The elytra, as in *Selenophorus*, have three rows of punctures.

1. *Discoderus arcuatus*.

Selenophorus arcuatus, Putzeys, Stett. ent. Zeit. 1878 (Jan.), p. 71¹.

Selenophorus amblyderus, Bates, Proc. Zool. Soc. 1878 (May), p. 591².

Discoderus cyanellus et tristis, Chaudoir in coll.

Hab. MEXICO¹, near the city (*Flohr*², *Sallé*), Toluca, Guanajuato (*Sallé*), San Luis Potosi, Sierra de San Miguelito (*Dr. Palmer*), Jalapa, Las Vigas (*Höge*).

Having examined a large number of specimens apparently of both sexes, I find none with anterior tarsi clothed with squammules beneath. The middle tibiæ are faintly curved in what I take to be the male.

2. *Discoderus piger*.

Robustus, elongato-oblongus, convexus, niger nitidus, cæruleo vel violaceo leviter tinctus, subtus thoracis marginibus elytrorumque epipleuris sæpe piceo-rufis, pedibus interdum piceo-rufis, labro, palpis et antennis piceo-fulvis; thorace magno, convexo, ovato, subquadrato, elytris vix angustiore, lateribus arcuatis, sed antice quam postice citius angustato, angulis anticis deflexis apice obtusis, posticis rotundatis, sulco marginali versus basin dilatato plus minusve explanato; elytris versus apicem oblique sinuatis, dorso grosse et profunde striatis, interstitiis convexis, punctis seriatis conspicuis in striis 2^a, 5^a et 7^a sitis. ♂ ♀ tarsis anticis nec dilatatis nec squamosis, tibiis intermediis fortiter arcuatis.

Long. 5 $\frac{3}{4}$ –7 lin.

Hab. MEXICO, Oaxaca (*Sallé*, *Höge*).

Named by Chaudoir *piger* in the *Sallé* collection, and *tenuimargo* in his own.

3. *Discoderus difformipes*.

Paullo angustior, robustus, elongatus, convexus, niger cyaneo tinctus, palpis, antennis et tarsis piceo-rufis; thorace minus ovato, oblongo, lateribus parum arcuatis, angulis anticis conspicuis, rectis, lateribus versus basin cyaneis; elytris postice paullo angustatis, ut in *D. pigro* grosse et profunde striatis, punctis seriatis minus conspicuis; tibiis anticis apice extus paullo dilatatis, intermediis gracilibus fortissime angulatim curvatis; trochanteribus posticis valde elongatis, apice subacutis.

Long. 6 $\frac{1}{2}$ lin. ♂.

Hab. MEXICO, Guanajuato (*Dugès*, coll. *Sallé*).

Closely allied to *D. piger*, but effectively distinguished from it by the longer, thinner, and much more strongly incurved middle tibiæ. In *D. piger* (male) these are strongly bowed, but not abruptly curved or bent, except close to the apex; in *D. difformipes* they are bent at almost an obtuse angle near the middle.

4. *Discoderus distortus*. (Tab. III. fig. 21.)

Elongato-oblongus, parallelogrammicus, convexus, supra æneus, capite thoraceque plus minusve cyaneis, labro, palpis, antennis elytrorumque epipleuris fulvis, thoracisque margine corporeque sæpe piceo-fulvis; thorace quadrato antice dilatato, sed interdum ut in *D. difformipede* subovato lateribus regulariter modice arcuatis,

foveis basalibus magnis sat profundis; elytris fortiter striatis, interstitiis (apice excepto) planatis; tibiis intermediis fortiter arcuatis. ♂(?) tibiis longioribus et (versus apicem) subangulatim curvatis.
Long. $4\frac{1}{2}$ – $6\frac{1}{2}$ lin.

Hab. MEXICO, Cuernavaca, Yolos, Peras (*Sallé*).

Differs from *D. difformipes*, when individuals are compared of equal development, only by its bright metallic colour, the anterior dilatation of the thorax, and the flattened summits of the elytral interstices. The degree of curvature of the middle tibiæ varies much; the largest individuals having this character the most strongly marked.

The species has been long known in collections as *D. curvipes*, but has apparently not been described; and the name has been applied by Putzeys to a different insect.

TRICHOPSELAPHUS.

Trichopselaphus, Chaudoir, Bull. Mosc. 1843, iii. p. 399.

Distinguished from *Discoderus*, to which and to *Selenophorus* it is closely allied, by the dilatation of the femora and the strong curvature of the tibiæ of the hind legs in the male, the middle tibiæ being normal. Owing to the more elongate body and cordiform thorax, the facies is that of a *Pterostichus* rather than of a *Harpalus*. The middle tarsi of the male are scarcely dilated; and the squamæ of their soles are concealed by long hairs. The penultimate joint of the labial palpi is plurisetose. In the form and clothing of the palpi and in other characters the genus resembles *Gynandropus*. Two species only are known—one from South Brazil, and the following from Mexico.

1. *Trichopselaphus minor*.

T. subiridescente minor et gracilior, subviridi-æneus, antennis, palpis pedibusque piceo-rufis; thorace convexo, lævi, subcordato, ante medium rotundato-dilatato, postice gradatim sat angustato, marginibus prope angulos posticos explanatis; elytris apice modice sinuatis, profunde striatis, interstitiis planatis, striis 2^a–5^m et 7^a inconspicue seriatim punctatis. ♂ femoribus posticis dilatatis, infra subdentatis; tibiis modice arcuatis; trochanteribus apice oblique truncatis, extus acuminatis.

Long. 5 lin. ♂.

Hab. MEXICO, Vera Cruz (*Sallé*).

STENOMORPHUS.

Stenomorphus, Dejean, Sp. Gén. Col. v. p. 696 (1831); Horn, Trans. Am. Ent. Soc. ix. 1881, p. 180.

Agaosoma, Ménétrés, Bull. Ac. Petrop. 1844, ii. p. 63.

The affinities of this, at first sight, apparently anomalous genus have been rightly apprehended by Dr. Horn. Had he been acquainted, however, with the extreme forms of *Discoderus* and with *Trichopselaphus*, he could not have failed to perceive the affinity it has also with those genera, and thus avoided placing them in distinct groups of his tribe Harpalini.

The genus is peculiar to America, but does not seem to occur north of California or south of Colombia. Three feebly differentiated species have been described.

1. **Stenomorphus rufipes.** (Tab. III. fig. 22.)

Stenomorphus rufipes, Leconte, Proc. Ac. Phil. 1858, p. 59; id. Journ. Ac. Phil. iv. 1858, p. 29¹, t. 4. f. 5.

Hab. NORTH AMERICA, Texas¹.—MEXICO, Guanajuato (*Dugès, coll. Sallé*).

Named *S. rufipes* in the Sallé collection, and agreeing with Leconte's description and figure. The Mexican species, however, is different from a species collected in Texas by Belfrage, and distributed by him to his correspondents, which has the hind tibiæ less perceptibly dilated.

GYNANDROPUS.

Gynandropus, Dejean, Sp. Gén. Col. v. p. 817; Putzeys, Stett. ent. Zeit. 1878, p. 289; Horn, Trans. Am. Ent. Soc. ix. (1881) p. 180.

A dozen species of this well-marked genus are known, all American, ranging from beyond the southern tropic to the temperate parts of North America, and including the West Indies.

1. **Gynandropus mexicanus.**

Gynandropus mexicanus, Putzeys, Stett. ent. Zeit. 1878, p. 291¹.

Hab. MEXICO¹, Cordova (*Sallé*), Las Vigas, Jalapa (*Höge*); GUATEMALA, San Gerónimo, Coatepeque, Senahu (*Champion*).

The species varies in Guatemala in the form and punctuation of the thorax; and I doubt if the following, founded on similar differences, is really distinct.

2. **Gynandropus intermedius.**

Gynandropus intermedius, Putzeys, Stett. ent. Zeit. 1878, p. 293¹.

Hab. MEXICO, Oaxaca¹, Guanajuato (*Dugès, coll. Sallé*).

3. **Gynandropus agonoides.**

Gynandropus agonoides, Putzeys, Stett. ent. Zeit. 1878, p. 294.

Hab. MEXICO.

Unknown to me.

ATHROSTICTUS.

Athrostictus, Bates, Proc. Zool. Soc. 1878, p. 592.

Hypolithus (partim), Dejean.

Selenophorus (partim), Putzeys.

“Corpus elongato-ovatum, supra (præcipue elytris) dense minute punctatum. Caput ovatum, postice gradatim paullo angustatum. Oculi magni sed non prominentes, postice orbitu inclusi. Antennæ filiformes, graciles. Mentum profunde emarginatum, sinu fundo haud dentatum. Ligula angusta, apice libera, longe bisetosa; paraglossis latis ea longioribus. Elytra haud conspicue seriato-punctato. Cætera ut in generibus *Hypolitho* et *Harpalo*.”

BIOL. CENT.-AMER., Coleopt., Vol. I. Pt. 1, February 1882.

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As far as at present known, this genus is restricted to Tropical America. The species much resemble the *Hypolithi* of the Old World in form and sculpture, and are distinguishable almost solely by the edentate mentum.

1. *Athrosticktus sericatus*. (Tab. III. fig. 25.)

Athrosticktus sericatus, Bates, Proc. Zool. Soc. 1878, p. 592¹.

“Latiior, oblongus, niger, omnino punctulatus, breviter erecte fulvo-pubescentibus; antennis, palpis et tarsis obscure rufescentibus; thorace transversim quadrato, postice vix angustato, angulis anticis haud prominulis, posticis fere rectangulis, lateribus paullulum arcuatis; elytris læte aureo-sericeo relucens, fortiter striatis, interstitiis densissime punctato-granulatis; corpore subtus nigro nitido, opalescente, punctulato.

“Long. $6\frac{1}{2}$ lin. ♀.”

Hab. MEXICO, Vera Cruz (*Boucard*¹, *Höge*), Cordova, Playa Vicente (*Sallé*), Las Vigas, Jalapa (*Höge*), Tehuantepec (*Sumichrast*); SALVADOR (*Sallé*); GUATEMALA, Yzabal (*Sallé*), Senahu (*Champion*); NICARAGUA, Chontales (*Janson*).

Closely allied to *A. chlænioides* (Dejean) of Venezuela.

2. *Athrosticktus opalescens*.

Athrosticktus opalescens, Bates, Proc. Zool. Soc. 1878, p. 592¹.

“Oblongus, piceus, breviter erecte pubescens; labro, palpis, antennis et pedibus rufo-fulvis; capite et thorace nitidis, elytris opalescenti-micantibus; capite postice punctulato; thorace quadrato, lateribus fortiter arcuatis, angulis posticis fere rotundatis, basi late subrugose punctulatis; elytris apice leviter sinuatis, exarato-striatis, interstitiis minute crebre granulatis, 3° et 5° indistincte seriatim punctatis; corpore subtus nigro, læte opalescente; metasterno punctulato.

“Long. 4 lin. ♂ ♀.”

Hab. PANAMA (*Salvin*).

Apparently closely allied to *A. paganus* (*Hypolithus paganus*, Dejean); but the absence of allusion to the strong iridescent gloss in Dejean's description forbids the conclusion that the species is really the same.

AMBLYGNATHUS.

Amblygnathus, Dejean, Sp. Gén. Col. iv. p. 62.

A genus closely allied to *Selenophorus*, but sufficiently distinguished by its extremely broad epistome, the anterior margin of which is arcuated, and by the mandibles being, to an unusual extent, concealed by the labrum in repose. It is confined to Tropical America; six species only have as yet been described.

1. *Amblygnathus mexicanus*.

Selenophoro flavipedi simillimus, at differt præter characteres genericos, thoracis angulis posticis omnino rotundatis, elytrorumque interstitiis planis et striola scutellari elongata. Niger, opalescens, antennis, palpis pedibusque fulvis, labro fulvo vel fusco fulvo-marginato; thorace lateribus arcuatis, angulis posticis

rotundatis, basi crebre punctata, marginibus fulvis; elytris apice subfortiter sinuatis, striatis, striola scutellari tenui, elongata, interstitiis planis versus apicem angustis et convexioribus, stria 2^a, 5^a et 7^a seriato-punctatis.

Long. $3\frac{1}{4}$ lin.

Hab. MEXICO, Cordova (*Sallé*).

Specimens in the *Sallé* collection were labelled *Selenophorus flavipes*, Putz.

BARYSOMUS.

Barysomus, Dejean, Sp. Gén. Col. iv. p. 56 (1829).

Oosoma, Nietner, Journ. Asiat. Soc. Bengal, 1857, p. 146.

Common to the tropical regions of America and Asia, north of equator, but not hitherto recorded from Africa. Nine species have been described.

1. *Barysomus höpfneri*.

Barysomus Höpfneri, Dejean, Sp. Gén. Col. iv. p. 57¹.

Hab. MEXICO¹.

I have not seen any specimen agreeing with the description of Dejean. All the examples under the name *höpfneri* in the *Sallé* collection belong to the following.

2. *Barysomus metallicus*. (Tab. III. fig. 24.)

Barysomus metallicus, Reiche, Rev. Zool. 1843, p. 141¹; Lacordaire, Gen. Col. Atlas, t. 11. f. 1.

Hab. MEXICO, Cordova (*Sallé*), Las Vigas (*Höge*); GUATEMALA, San Gerónimo (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Venezuela¹.

Subfam. PELMATELLINÆ.

This new subfamily is here proposed for the reception of a number of genera of small Quadripalmati, which agree with the Anisodactylinæ in the brush-like clothing of the dilated male tarsi, but differ from that group in having the penultimate joint of the labial palpi bisetose. In the latter character they agree with *Stenolophus*, *Bradycellus*, and allies, forming the next subfamily, in which the soles of the dilated male tarsi are biseriately squamose as in Harpalinæ. But, notwithstanding this important differential character, the two groups have a very close affinity with each other: they have a similar facies, and the same curved prolongation of the frontal foveæ; some species, moreover, show a confused arrangement of the scaly hairs on the soles of the tarsi, indicating a passage from one subfamily to the other. Besides *Pelmatellus* and *Thenarellus* here described, the group includes the Australian genera *Lecanomerus*, *Thenarotes*, and *Syllectus*, and the Chilian genus *Nemaglossa*.

PELMATELLUS.

Parvus, facies *Stenolophi*. Oculi parum prominentes; foveæ frontales curvatæ, utrinque usque ad oculum continuatæ. Palpi versus apicem attenuati, acuti; labiales articulo penultimo bisetoso. Mentum in sinu acute dentatum. Antennæ graciles, articulo 3^o sequenti subæquali, subtiliter sed sparsius pubescente. Thorax elytris angustior. Elytra oblongo-ovata, stria scutellari brevi basi striæ 2^m conjuncta, interstitio tertio post medium unipunctato. Pedes graciles; tibiæ intermediae et posticæ spinulosæ, anteriores extus tantum ad apicem pauca spinosæ. Tarsi posteriores articulo 1^o quam sequens longiore; anteriores quatuor ♂ articulis 2^o-4^m dilatatis subcordatis (4^o vix bilobato), plantis ut in *Anisodactylis* planis æqualiter dense pubescentibus marginibus ciliatis, articulo primo pedum anteriorum triangulari subtus sparsim pubescente, pedum intermediorum elongato subtus simplici.

The numerous small species of this genus found in Tropical America are liable to be confounded with *Stenolophus* or *Bradycellus*, if attention is not paid to the clothing of the soles of the dilated tarsi. They resemble also the smaller species of the Australian genus *Diaphoromerus*, from which they differ in the curved frontal foveæ, the bisetose penultimate joint of the labial palpi, and the longer and less lobed shape of the dilated tarsal joints of the male.

1. *Pelmatellus nitescens*. (Tab. III. fig. 17.)

Oblongus, niger, supra ænescens politus, palpis, antennis basi (cæteris fuscis) pedibusque melleo-flavis; capite lævi, foveis frontalibus conspicuis linea curvata usque ad oculum profunde impressa; thorace quadrato, antice modice rotundato, postice subrecte angustato (margine interdum rufescente) margine basali utrinque versus angulum rotundato, sed angulis posticis distinctis, subdenticulatis, basi utrinque plus minusve distincte punctato; elytris subpunctulato-striatis, interstitiis plus minusve (præcipue juxta apicem) convexiusculis.

Long. $2\frac{3}{4}$ -3 lin. ♂ ♀.

Hab. MEXICO, Jalapa, Las Vigas, Oaxaca (*Höge*); GUATEMALA, Capetillo, Senahu, Quesaltenango (*Champion*).

The hind angles of the thorax have a minute prominence (sometimes scarcely perceptible), formed by a projection of the basal rim.

2. *Pelmatellus stenolophoides*.

Rufescenti-piceus, supra ænescens politus, antennis basi (vel totis), palpis pedibusque pallidius rufis; capite lævi, foveis frontalibus suturaque transversa subtilissime impressis; thorace parum transverso, lateribus fere æqualiter arcuatis, angulis anticis distinctis, posticis omnino rotundatis, marginibus lateralibus paullulum æqualiter explanatis rufis, basi utrinque parcissime punctulato, foveis latis; elytris margine basali utrinque fortiter arcuato, apice subprofunde sinuatis, supra acute subtiliter striatis, interstitiis usque ad apicem planis, marginibus rufescentibus.

Long. $2\frac{1}{4}$ -3 lin. ♂ ♀.

Hab. MEXICO, Cordova, Capulalpam (*Sallé*).

3. *Pelmatellus obtusus*.

P. nitescenti affinis, minor, thoracisque angulis posticis rotundatis etc. Nigro-piceus, supra ænescens politus, antennis basi (cæteris fuscis), palpis apice pedibusque piceo-rufis; capite lævi, foveis frontalibus parvis profundis, supra extus in linea subtili curvata usque ad oculum continuatis; thorace quadrato, lateribus perparum arcuatis (margine rufescente), postice gradatim angustato, angulis posticis rotundatis,

marginibus basali utrinque leviter sinuato, supra lævi, basi indistincte sparsim punctulato, foveis elongatis; elytris subtiliter acute striatis, interstitiis planis, apice sinuatis.

Long. $1\frac{3}{4}$ – $2\frac{1}{2}$ lin. ♂ ♀.

Hab. GUATEMALA, Ostuncalco, Totonicapam (*Champion*).

4. *Pelmatellus cyanescens*.

Parvus, lætius coloratus, supra cyanescenti-viridis (interdum æneus), antennis basi (cæteris fuscis), palpis pedibusque melleo-flavis; thorace quadrato, antice leviter rotundato-dilatato, postice subrecte longe angustato, lateribus ante angulos posticos prominentes sinuatis, basi utrinque indistincte punctato; elytris convexis, apice sinuatis et ante sinum paullo explanatis, marginibus suturaque (interdum) paullo rufescentibus, interstitiis planis vel paullo convexis.

Long. 2– $2\frac{1}{4}$ lin. ♂ ♀.

Hab. MEXICO, Cordova (*Sallé*).

5. *Pelmatellus vexator*.

Oblongo-ovatus, convexus, niger, supra leviter æneo tinctus, palpis, antennis pedibusque testaceo-rufis, femoribus medio tibiisque apice obscurioribus; thorace modice transverso, lateribus fortiter arcuatis, postice multo magis quam antice angustato, angulis posticis paullulum extantibus, basi sparsim punctato, foveis linearibus conspicuis; elytris subpunctulato-striatis, stria prima prope basin curvata interdum interrupta.

Long. $2\frac{1}{2}$ lin. ♂ ♀.

Hab. GUATEMALA, Totonicapam (*Champion*).

Differs from the preceding species in its greater convexity and the more ovate form of the elytra. In facies it resembles Japanese species of *Tachycellus*, whilst the four preceding species have the more elongate form of *Stelenophus*. The middle tarsi of the male appear also to be a trifle less dilated; and the brush-like palms of all four dilated feet are rather less smooth, or formed of coarser hairs.

THENARELLUS.

Bradycello prima facie simillimus; at differt maris plantis dilatatis pilosis nec squamosis; a *Pelmatello* differt maris tarsis intermediis haud dilatatis, elytrorumque interstitio tertio absque punctis. Convexus. Antennæ robustæ, articulo tertio fere nudo; palpi acuminati. Mentum concavum, dentatum; palpi labiales pendentes. Thorax transversus, cordato-quadratus, postice angustatus. Elytra ovata, convexa, interstitio tertio impunctato. ♂. Tarsi antici articulis quatuor modice, æqualiter dilatatis (4^o vix lobato), plantis 2^a–4^m pilis albis nitidis vestitis; tarsi intermedii haud dilatati, sed articulis 2^o–4^m pilis nonnullis vestitis.

The absence of the solitary setiferous puncture of the third interstice, so characteristic of this group and its allies, and the undilated intermediate tarsi of the male, effectively distinguish this genus from *Pelmatellus*. The hairs on the soles of the dilated male tarsi are coarse, white, and glistening as in *Bradycellus*; but there is no trace of transverse lamellar arrangement.

1. *Thenarellus leucopus*.

Oblongo-ovatus, convexus, niger, supra leviter æneo tinctus, palpis, antennis pedibusque flavis; capite lævi, polito; thorace cordato-quadrato, antice paullo rotundato (angulis anticis minime productis), postice

subrecte sat angustato, angulis posticis obtusis, foveis basalibus latis fere lævibus; elytris elongato-ovatis, apice oblique sinuatis, margine basali utrinque fortiter arcuato, dorso haud profunde punctulato-striatis, striis duabus marginalibus ante basin haud conjunctis, stria 8^a prope basin et apicem grosse ocellato-punctata.

Long. $2\frac{1}{2}$ lin. ♂ ♀.

Hab. COSTA RICA, Volcan de Irazu (*Rogers*).

Subfam. *STENOLOPHINÆ*.

The genera *Stenolophus*, *Acupalpus*, *Bradycellus*, *Tachycellus*, and their allies, usually associated with the Harpalinæ, are distinguished from that group, as Dr. Horn has recently pointed out, by the penultimate joint of the labial palpi bearing two setæ only. With this character are associated many other points of difference, such as a relatively smaller prothorax, curved frontal foveæ, and the constant presence of a single puncture on the third elytral interstice. They are insects of much smaller size than the great majority of the true Harpalinæ, and readily distinguished from them by their facies. In short, they form a natural group; and, the dilated tarsal joints of the male being furnished beneath with squammules, they bear the same relation to the Harpalinæ proper as the Pelmatellinæ do to the Anisodactylinæ. Some genera seem to be intermediate in the nature of the clothing of the dilated tarsal soles of the male; and further microscopic investigation, especially of the numerous undescribed exotic species, may show the necessity of uniting into one subfamily all these small Harpalidæ with bisetose penultimate joint of the labial palpi.

The genera *Euthenarus* (New Zealand) and *Trachysarus* (Chili) belong to this subfamily. I propose also to include in it *Agonoderus*, placed by Dr. Horn in the Daptini. The frontal foveæ in this genus are continued as a curved line to the inner margin of the eyes; and the penultimate joint of the labial palpi is bisetose, as in *Stenolophus*.

STENOLOPHUS.

Stenolophus, Dejean, Sp. Gén. Col. iv. p. 405; Horn, Trans. Amer. Ent. Soc. ix. 1881, p. 181, gen. char. t. x. f. 136.

About eighty species of this well-known genus have been described; but many of them probably do not really belong to it, and the whole genus needs revision. The great majority of the described species are from temperate latitudes of both hemispheres, the minority being from Africa and Tropical Asia.

1. *Stenolophus mexicanus*.

S. flavipedi (Leconte) affinissimus, differt tantum statura minore, thorace lateribus minus arcuatis basique minus punctato. Elongatus, æneo-piceus, antennis basi, palpis (articulis terminalibus basi piceis), thorace et elytris marginibus lateralibus suturaque posteriore, pedibusque flavo-testaceis; thorace quam elytra multo angustiore, subquadrato, antice paullulum rotundato-dilatato, postice subrecte sat angustato, angulis

posticis nullis, foveis basalibus latis punctatis, media basi lævi; elytris magis æneis, argute striatis, striola scutellari elongata omnino recta, 8^a valde flexuosa, interstitiis planatis, 3^o unipunctato.

Long. $3\frac{1}{4}$ lin.

Hab. MEXICO, Jalapa (*Höge*).

Distinguished from the Californian *S. flavipes* only by its somewhat smaller size, less regularly arcuated sides of thorax, the widest part of which is much before the middle, and by a few minor peculiarities. The differences are probably specific, and of similar degree to those which separate the two Californian species, *S. flavipes* and *S. limbalis*.

2. *Stenolophus conjunctus*.

Trechus conjunctus, Say, Trans. Amer. Phil. Soc. ii. (1823) p. 90¹.

Stenolophus conjunctus, Leconte, Say, Ent. N. Amer. ii. p. 504 (1859).

Acupalpus misellus, Dejean, Sp. Gén. Col. iv. p. 467 (1829)².

Acupalpus rotundicollis, Haldeman, Proc. Acad. Phil. i. p. 302³.

Acupalpus lugubris, Haldeman, ib.⁴.

Acupalpus obesus, Bates, Proc. Zool. Soc. 1878, p. 593⁵.

Hab. NORTH AMERICA^{1 2 3 4}, generally distributed.—MEXICO, near the capital⁵, Guanajuato (*Dugès, coll. Sallé*), Oaxaca (*Höge*); GUATEMALA, Capetillo (*Champion*).

BRADYCELLUS.

Bradycellus, Erichson, Käfer d. Mark Brandenburg, i. p. 64 (1837); Horn, Trans. Amer. Ent. Soc. ix. 1881, p. 182.

This genus also needs a thorough revision. About sixty species have been described, many of which have been recently proved by Dr. Horn to belong to *Tachycellus* and even to *Harpalus*. With four exceptions, all the published species are from temperate latitudes of the northern hemisphere.

1. *Bradycellus obsoletus*.

Acupalpus obsoletus, Say, Trans. Amer. Phil. Soc. iv. (1834) p. 436¹.

Hab. MEXICO¹, Orizaba, Capulalpam, Toluca (*Sallé*), Las Vigas, Oaxaca (*Höge*), San Luis Potosi (*Dr. Palmer*), Mexico city (*Flohr*).

Var. *subobsoletus* (Bates, Proc. Zool. Soc. 1878, p. 593), elytris plus minusve conspicue striato-punctatis.

Hab. MEXICO, near the city (*Flohr*), Las Vigas, Oaxaca (*Höge*), San Luis Potosi (*Dr. Palmer*).

Var. *lucidus* (Bates, Proc. Zool. Soc. 1878, p. 592, = *B. nigripennis*, Chaudoir in coll.), capite thoraceque rufo-sanguineis immaculatis, elytris nigris limbo plus minusve ferrugineo.

Hab. MEXICO, Puebla (*Sallé*).

Var. *melanochrous*, Chaudoir in coll. *Sallé*, omnino nigro-fuscus, antennis pedibusque piceis.

Hab. MEXICO, Puebla, Toluca (*Sallé*).

An examination of a long series of examples from various localities shows this to be a very variable species. In size it ranges from $2\frac{1}{4}$ –4 lines. In colour it is normally ferruginous tawny, with two fuscous spots on the disk of the thorax, and the elytra, excepting the margins, fuscous with a brassy tinge; but the fuscous colour sometimes spreads over the whole surface, and, on the other hand, the thorax is sometimes clear ferruginous. The normal sculpture of the elytra is confined to a deeply impressed sutural and two marginal striæ; but the disk is sometimes rather strongly punctate-striate, and all intermediate variations occur. The species is distinguished from the closely allied *B. nitidus* (Dej.) of California only by its more elongate form and its narrower thorax.

2. *Bradycellus circumdatus*.

Acupalpus circumdatus, Bates, Proc. Zool. Soc. 1878, p. 593¹.

“Elongato-oblongus, castaneo-fuscus; antennis basi, palpis, pedibus margineque angusto elytrorum flavo-testaceis; thorace postice valde angustato, lævi, basi utrinque haud foveato, parum punctato, lateribus antice fortiter rotundatis, postice sinuatis, angulis posticis prominulis rectis; elytris striis modice impressis, haud punctatis, striola scutellari nulla.

“Long. $2\frac{1}{3}$ lin.”

Hab. MEXICO, Vera Cruz (*Boucard*)¹, Cordova, Toxpam (*Sallé*); GUATEMALA, Dueñas, Torola (*Champion*).

The pale yellowish border of the elytra very frequently widens behind into an apical patch; and the apical portion of the suture is then pallid. The base of the thorax on each side varies much in its punctuation and is sometimes quite smooth. The third elytral interstice bears the usual puncture near the second stria.

The species is named *Bradycellus ingratus* in the Sallé collection.

3. *Bradycellus flohri*.

Acupalpus flohri, Bates, Proc. Zool. Soc. 1878, p. 593¹.

“Elongato-oblongus, castaneo-rufus, capite supra, elytris utrinque disco, abdomineque castaneo-fuscis; capite fronte foveolata; thorace lateribus usque angulos posticos obtusos rotundatis, basi utrinque grosse sparsim punctato; elytris simpliciter striatis, striola scutellari nulla.

“Long. 2 lin.”

Hab. MEXICO, near the capital (*Flohr*)¹, Guanajuato (*Dugès, coll. Sallé*), Oaxaca (*Höge*); GUATEMALA, Capetillo (*Champion*).

Var. *longulus*, paullo gracilior, thorace postice paullo magis angustato; supra nigro- vel castaneo-fuscus, elytrorum humeris sutura et margine rufis exceptis.

Closely allied to *B. circumdatus*, but the thorax always much longer and more narrowed behind, with hind angles almost effaced. In colour it varies much, from tawny testaceous (immature?) to nearly black, with sutural and lateral margins (and sometimes the humeral angles) of the elytra reddish; but the great majority of the specimens examined are as described in the foregoing diagnosis.

The species is very closely allied to the North-American *B. rupestris* (Say); and

although the thorax is narrower and generally much more narrowed behind, I doubt whether it is specifically distinct.

4. *Bradycellus limbicollis*.

Oblongus, subdepressus, testaceo-fulvus vix nitidus, fronte, thoracis lateribus elytrorumque disco posteriore lateribusque nigro-fuscis; palpis, antennis basi pedibusque flavo-testaceis; thorace cordato-quadrato, postice modice rotundato-angustato, lateribus ante basin breviter sed fortiter sinuatis, angulis posticis productis, foveis basalibus latis plus minusve punctatis; elytris apice obtusis perparum sinuatis, margine basali utrinque fortiter arcuato, dorso argute striato, striola scutellari nulla, striis 8^a et 9^a ante basin approximatis, interstitiis planatis, 3^o unipunctato.

Long. $1\frac{3}{4}$ lin.

Hab. MEXICO (*Sallé*); GUATEMALA, Paso Antonio (*Champion*).

Var. omnino testaceo-flava (*immaturus?*).

Hab. GUATEMALA, Paso Antonio (*Champion*).

5. *Bradycellus nigrellus*.

B. circumdato colore similis, multo minor, piceo-niger (elytris interdum subæneo tinctis), nitidus, collo interdum rufo; palpis, labro, antennis basi, pedibusque flavo-testaceis, elytris margine suturaque (præcipue postice) rufo-testaceis; thorace quadrato postice recte modice angustato, antice parum rotundato, angulis posticis rectis, basi transversim depressa, fovea utrinque lata discrete fortiter punctata; elytris subparallelis, apice obtuse rotundatis, striatis, striola scutellari nulla, interstitiis planatis, 3^o unipunctato.

Long. $1\frac{1}{2}$ lin.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, near the city, Quiche Mountains, San Gerónimo, Capetillo, Zapote, Panajachel (*Champion*).

6. *Bradycellus angulifer*.

B. nigrello quam maxime affinis, differt colore fulvo-castaneo, elytris utrinque disco, thoraceque dorso interdum, infuscatis. Parvus; thorace subcordato, antice sat rotundato-dilatato, postice magis angustato, margine ante angulos productos acutos conspicue sed breviter sinuato, basi utrinque punctata; elytris absque striola scutellari; antennis basi, palpis pedibusque testaceo-flavis.

Long. $1\frac{1}{3}$ lin.

Hab. MEXICO, Vera Cruz, Cordova (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), Oaxaca (*Höge*); GUATEMALA, Capetillo, San Gerónimo (*Champion*).

I adopt the name given to this species by Chaudoir in the Sallé collection. It is scarcely distinct from *B. nigrellus*, differing only in colour and in the thorax being a little more rounded anteriorly and more cordate. As all the Mexican specimens I have seen are of this form, to the exclusion of the black *B. nigrellus*, it merits a distinguishing name.

The following genus, in the present state of our knowledge, is difficult to place in the Harpalidæ series. It has hitherto been associated with *Acinopus*, *Daptus*, and other genera in a distinct subgroup; but, as Dr. Horn points out, the penultimate joint

of the labial palpi is bisetose. The frontal foveæ, although differing from those of the Stenolophinæ by their great size, irregular form, and depth, curve in some species distinctly towards the eyes. The tarsi of the male are scarcely dilated, and offer no satisfactory guide; but the genus offers points of resemblance to *Bradycellus*, and especially to species of *Tachycellus* with enlarged head; and it is probably an abnormal form of the present subfamily.

POLPOCHILA.

- Polpochila*, Solier in Gay, Hist. Fisica y Politica de Chile, Ins. iv. p. 217 (1849); Horn, Trans. Amer. Ent. Soc. ix. 1881, p. 178 (gen. char.), t. 27. f. 127.
Melanotus, Dejean, Sp. Gén. Col. v. p. 698 (1831), nom. præocc.
Cratocara, Leconte, List Col. N. Amer. part 1, Smithsonian Misc. Coll. no. 140 (1863).
Phymatocephalus, Schaum, Berl. ent. Zeit. 1864, p. 125.
Cratognathus, Perty, Del. An. Art. Bras. p. 13 (1830), nec *Cratognathus*, Dej. (1829).

The genus is peculiar to America, and has a wide range, from Chili to Lower California. Seven or eight species are known.

1. *Polpochila capitata*. (Tab. III. fig. 20.)

- Melanotus capitatus*, Chaudoir, Bull. Mosc. 1852, i. p. 83¹.
Melanotus erro, Leconte, Proc. Acad. Phil. 1854, p. 221²; id. Cat. Col. of Boundary line between U. S. and Mexico, p. 29, t. 4. fig. 6³.
Polpochila capitata, Leconte, List Col. N. Amer., Smithsonian Miscell. Coll. no. 140, p. 11.
Phymatocephalus Riehlii, Schaum, Berl. ent. Zeitschr. 1864, p. 126⁴.

Hab. NORTH AMERICA, Lower California², Arizona³.—MEXICO^{1 4}, Guanajuato, Peras (*Sallé*), near the capital (*Sallé*, *Flohr*), Oaxaca (*Höge*).

2. *Polpochila rotundicollis*.

Elongata, subgracilis, piceo-nigra, palpis, labro, antennis basi (cæteris articulis paullo obscurioribus) pedibusque flavo-testaceis; capite (♀) parvo, mandibulis haud conspicue productis, foveis frontalibus subrotundis, nec postice nec extus prolongatis; thorace parvo, parum transverso, fere rotundato, postice magis quam antice angustato, angulis anticis rotundatis nullomodo productis, posticis nullis, fovea basali utrinque transversa elongata paullulum punctata; elytris elongatis, apice oblique sinuatis, fortiter simpliciter striatis, striola scutellari elongata, 8^a et 9^a ante basin conjunctis, interstitiis paullo convexis; epipleuris fulvis.

Long. 5½ lin. ♀.

Hab. MEXICO, Leon (*Sallé*).

Chaudoir named this species *P. scaritides* (Perty) in the *Sallé* collection; but it is far from agreeing with Perty's description or his figure, which represent a species with strongly transverse thorax. *P. scaritides* is said to be from Piauhy, in the interior of Brazil; but specimens which I took on the Upper Amazons perfectly agree with it, and are very different from the present Mexican species.

3. *Polpochila mexicana*.

Polpochila mexicana, Bates, Proc. Zool. Soc. 1878, p. 589¹.

“Angusta, parva, castanea, palpis, antennis basi, pedibus margineque apicali elytrorum flavo-testaceis; foveis frontalibus usque ad oculorum marginem posticum fortiter impressis; thorace late cordato, lateribus ante basin fortiter sinuatis, angulis posticis exstantibus; elytris profunde striatis.

“Long. 3 lin. ♂.”

Hab. MEXICO, Vera Cruz (*Boucard*¹, *Höge*), Cordova, Tuxtla (*Sallé*), Vera Cruz (*Höge*); GUATEMALA, Torola, Paso Antonio (*Champion*); NICARAGUA, Chontales (*Janson*).

The scutellar striole is absent in this species.

Subdivision D. *Tripalmati**.

This subdivision includes the “Féroniens” of Dejean’s ‘Species Général,’ minus the genera which subsequent authors have removed to the Broscinae.

Subfam. AMARINÆ.

A character recently detected by Dr. Horn, viz. the plurisetose and relatively elongated penultimate joint of the labial palpi, may be utilized (although its discoverer neglected to do so) in separating the genus *Amara* and its allies from the Pterostichinae, from which the great majority of the *Amaræ* also differ conspicuously in facies and in certain minor though not constant characters. It is true that the Pterostichine genus *Evarthrus*, or at least the typical group of the genus, also presents the same character. This group, however, evidently forms the transition between the two subfamilies, the number of setæ on the joint in question varying in the different species. Some of the true *Evarthri*, however, much resemble species of the Amarine genus *Curtonotus*, and may well be included in the subfamily.

CURTONOTUS.

Curtonotus, Stephens, Illustr. Brit. Ent., Mandibulata, i. p. 138 (1828); Putzeys, Mém. Soc. Roy. Sci. Liège, 1866, p. 231.

Leirus, Zimmermann, Gistl’s Faunus, i. p. 38 (1832).

Putzeys, in his ‘Etude sur les Amara,’ published in the Memoirs of the Royal Academy of Sciences of Liège, the most important work on the group hitherto published, enumerated forty-one species as belonging to this genus, which he considered, like all the other subdivisions of the old genus *Amara*, a group only. The species are almost exclusively boreal, reaching arctic latitudes both in the New and Old Worlds, and diminishing in number towards the south.

* Bates, “Geodephagous Col. of Japan,” Trans. Ent. Soc. 1873, p. 272.

The following Mexican species, the most southerly yet recorded, are perfectly typical.

1. *Curtonotus deparcus*.

Platysma deparca, Say, Trans. Amer. Phil. Soc. iv. 1834, p. 426¹.

Curtonotus substriatus, Putzeys, Mém. Soc. Roy. Sci. Liège, 1866, p. 242².

Hab. MEXICO^{1 2}, near the city, Toluca (*Sallé*).

Say's description certainly refers to this species, and not to the following, although he makes no mention of the toothed middle tibiæ of the male. The feebly impressed striæ, obsolete towards the apex, and the size, "nearly half an inch," apply to *C. substriatus* and not to *C. putzeysi*.

2. *Curtonotus putzeysi*. (Tab. IV. fig. 1.)

Curtonotus putzeysi, Bates, Proc. Zool. Soc. 1878, p. 600¹.

"Elongato-oblongus, niger nitidus, subtus cum pedibus picescens, antennis et palpis piceo-rufis; thorace lateribus valde rotundatis, juxta basin fortiter subito constricto, angulis posticis rectis, limbo antice et postice grosse punctato; elytris thorace vix latioribus, parallelis, striis conspicue punctatis, omnibus acute impressis. ♂ tibiis intermediis medio intus haud dentatis.

"Long. 7½ lin. ♂ ♀."

Hab. MEXICO, near the capital (*Flohr*¹), Guanajuato (*Dugès, coll. Sallé*), Jalapa (*Höge*).

"Differs from *C. substriatus* by its larger size and more robust proportions, and by the stronger and more uniform striation of the elytra. The male is destitute of the broad tooth on the inner side of the middle tibiæ. Immature individuals are reddish piceous with pale margins."

CELIA.

Celia, Zimmermann, Gistl's Faunus, i. p. 18 (1832); Putzeys, Mém. Soc. Roy. Sci. Liège, 1866, p. 186.

About sixty species of this genus have been described. All are from the northern hemisphere; but the genus has, upon the whole, a more southerly extension than *Curtonotus*.

1. *Celia mærens*.

Celia mærens, Zimm. loc. cit. p. 25¹; Putzeys, loc. cit. p. 189².

Hab. MEXICO^{1 2}, Toluca (*Sallé*), near the city (*Flohr*), Las Vigas (*Höge*).

2. *Celia lugens*.

Celia lugens, Zimm. loc. cit. p. 25¹; Putzeys, loc. cit. p. 189².

Hab. MEXICO^{1 2}.

Putzeys was unable to determine Zimmermann's species with any degree of certainty. It is possibly one of the numerous varieties of *C. mexicana*.

3. *Celia högei*.

Subelongato-ovata, convexa, nigra, interdum cyaneo vel æneo leviter tincta, sat nitida, antennis articulis duobus basalibus palpisque apice rufis; capite brevi, foveis frontalibus linearibus sat profundis; thorace valde transverso, a basi ad apicem paullo arcuatim fortiter angustato, foveis basalibus parum impressis, interdum (præcipue exteriore) obsoletis; elytris (♀) sericeo-nitentibus, humeris dentatis, subpunctulato-striatis, striis vix impressis, interstitiis usque ad apicem planis, striola scutellari antice abbreviata basi simplici.

Long. $3\frac{1}{2}$ – $4\frac{1}{4}$ lin. ♂ ♀.

Hab. MEXICO, Las Vigas, Oaxaca (*Höge*), Jacale (*Sallé*), city of Mexico (*Flohr*).

Smaller and much less elongate than *C. mærens*, but larger and broader than *C. mexicana*; the thorax especially much shorter, broader at the base, and more narrowed anteriorly than in either species. The striæ of the elytra vary in the distinctness of their punctuation; and the interstices are sometimes a little convex.

4. *Celia championi*.

C. högei affinis, sed differt thorace postice minus dilatato lateribus a medio usque ad basin fere rectis, colore æneo, striisque distinctius punctulatis. *C. mexicana* major, antennis piceis, articulis 1° et 2° rufis, 3° colore variabili; thorace medio antice et postice grosse sed haud profunde punctato, fovea mediana brevi profunde incisa, exteriore obliqua conspicua; elytris acute striatis, striis plus minusve punctulatis, interstitiis (♂) convexis, (♀) plerumque planis, striola scutellari apud basin absque foveola; pedibus piceis.

Long. $3\frac{1}{2}$ –4 lin. ♂ ♀.

Hab. MEXICO, Las Vigas, Oaxaca (*Höge*), San Luis Potosi (*Dr. Palmer*); GUATEMALA, Ostuncalco, Totonicapam, Quezaltenango (*Champion*).

Except in colour, not easily distinguishable from *C. högei*; but if the shallow punctuation of the thorax near the anterior and posterior margins were constant, this would prove a good distinguishing character. The thorax, attentively examined, is always much less widened from the front to the base; and the basal foveæ are much more strongly impressed.

Mr. Champion collected the species in great numbers, and has sent home no colour-variety, all the individuals being of the clear brassy hue of the typical *C. mexicana*.

5. *Celia costaricensis*.

Celia costaricensis, Bates, Proc. Zool. Soc. 1878, p. 600¹.

“Oblongo-ovata, nigra, polita, plus minusve ænescens vel fusco-ænea; antennis piceo-nigris, articulis 1° et 2° vel 1°–3^m rufis; thorace convexo, mox pone angulos anticos rotundato-dilatato, deinde usque ad basin leviter arcuato vel subrecto, basi utrinque foveolis duabus distantibus lævibus, interiore recta, exteriore versus angulum oblique ducta; elytris prope apicem angustatis et compressis, striatis, striis lateralibus evanescentibus, striola scutellari ad basin secundæ oriente suturam haud attingente, interstitiis paullo convexis; pedibus piceis, tarsis pallidioribus; prosterni apice dilatato subtruncato.

“Long. 4 lin.

“Variat: 1, elytrorum interstitiis planissimis; 2, striis subtilissimis, subpunctulatis; 3, forma abbreviata, ovata.”

Hab. COSTA RICA, Irazu, alt. 6000–7000 feet (*Rogers*¹).

Of decidedly narrower form than either of the three preceding; narrower also than *C. mærens*, which it resembles in colour and in the feeble striation of the elytra,

although much more glossy on the surface. I have not seen it from any other locality than that above mentioned, where Rogers collected it in great abundance.

6. *Celia tenebrionella*. (Tab. IV. fig. 2.)

Minor, oblongo-ovata, nigra vix æneo tincta, antennis (articulo 1° vel 1° et 2° rufis exceptis), palpis pedibusque piceo-nigris, tibiis interdum rufo-piceis; thorace transverso, apud basin elytris latitudine æquali, deinde usque ad apicem gradatim et leviter arcuatim angustato, fere lævi, foveis basalibus vix impressis; elytris subpunctulato-striatis, interstitiis leviter convexis, striola scutellari absque foveola, stria 7^a fere obsoleta.

Long. 3 lin. ♂ ♀.

Hab. MEXICO, Las Vigas (*Höge*).

7. *Celia xanthognatha*.

C. tenebrionellæ affinissima, forsan ejus varietas; differt colore læte æneo, mandibulis (apice excepto) flavis, striolaque scutellari obsoleta.

Long. 3 lin.

Hab. MEXICO, Las Vigas (*Höge*).

Probably an extraordinary colour-variety of *C. tenebrionella*. The form and sculpture are exactly the same, with the exception of the obliteration of the scutellar striole, which, however, in *C. tenebrionella* is sometimes very faint. It is a much smaller and narrower insect than *C. mexicana*, which it resembles at first sight.

8. *Celia mexicana*.

Amara mexicana, Dej. Sp. Gén. Col. v. p. 792¹.

Celia mexicana, Putzeys, Mém. Soc. Roy. Sci. Liège, 1866, p. 190².

Hab. MEXICO¹, Orizaba², Chiapas², Guanajuato (*Dugès, coll. Sallé*), Parada, Puebla, Capulalpam, Toluca (*Sallé*), Mexico city (*Sallé, Flohr*), Las Vigas, Jalapa, Oaxaca² (*Höge*), San Luis Potosi (*Dr. Palmer*); GUATEMALA, Totonicapam (*Champion*).

The antennæ in the great majority of the specimens are tawny red, with the basal joints a little brighter red.

9. *Celia dolosa*.

Amara dolosa, Say, Trans. Amer. Phil. Soc. iv. p. 429 (1834)¹.

Hab. MEXICO¹, Puebla (*Sallé*).

Say describes a bluish-black species, three tenths of an inch long, with very fine impunctate striæ and flat interstices, strongly marked oblique fovea near thoracic angles, and antennæ dark with the three basal joints yellow. These characters do not fit either of the two black species (*C. högei* and *C. tenebrionella*) above described, but agree fairly well with a species in the Sallé collection labelled (I think erroneously) "*Celia sera*, Say;" the only difference is one of colour, the two Sallé examples being distinctly tinged with bluish green.

AMARA.

Amara, Bonelli, Obs. Entom. i. tabl. synopt. (1809); Zimmermann, Gistl's Faunus, i.; Putzeys, Mém. Soc. Roy. Sci. Liège, 1856, p. 174.

Putzeys enumerated forty-two species (including the section *Triæna*) as belonging to the restricted genus *Amara*. Like *Celia*, it is a group nearly confined to the north temperate zone in both hemispheres, extending into the tropics, as far as at present known, only on the North-American continent.

1. *Amara sallæi*.

Amara Sallæi, Putzeys, loc. cit. p. 185¹.

Hab. MEXICO¹, Jacale, Orizaba (*Sallé*), Las Vigas (*Höge*).

Similar to *Celia mexicana*, being distinguishable in the female only by the thorax being much more strongly rounded before the middle, the scutellar striole (which in most *Amaræ* originates at the base in a conspicuous foveole) being here simple, as in all the Mexican and Central-American *Celiæ*. The male, however, has the generic character of the restricted *Amaræ* (pubescent inner edge of the hind tibiæ) well marked.

2. *Amara sera*.

Amara sera, Say, Trans. Amer. Phil. Soc. iv. p. 429 (1834)¹.

Hab. MEXICO¹, Parada (*Sallé*), Mexico city (*Flohr*).

Bears a strong general resemblance to *Celia sallæi*, with which it was confounded in the Sallé collection; but it is readily distinguishable in both sexes by the scutellar striole originating at the base in an umbilicated foveole, and by the elytral striæ being more deeply scored towards the apex, with corresponding narrower and more convex interstices. The fringe of soft hairs on the inner side of the male tibiæ is sometimes very scanty.

I think there can be little doubt that Say had this species before him in describing *A. sera*; the "longer thorax" on which he insists is a character which distinguishes it from all the Mexican *Celiæ*. M. Flohr has met with it abundantly near the city of Mexico.

3. *Amara azteca*. (Tab. IV. fig. 3.)

A. seræ affinis, sed multo major. *Ænea*, palpis antennisque nigro-fuscis, his articulis 1^o-3^m (et 4^o basi) rufis, pedibus rufescenti-piceis; thorace lato, apud basin elytris latitudine æquali, deinde usque ad apicem sat fortiter arcuatim angustato, ante medium haud dilatato, fovea mediana acute insculpta, exteriore obliqua vage impressa; elytris argute, versus apicem vix profundius, striatis, interstitiis subplanis, striola scutellari foveola umbilicata incipiente; calcaribus omnibus simplicibus, fulvis.

Long. 4½ lin. ♂ ♀.

Hab. MEXICO, Las Vigas, Oaxaca (*Höge*).

A fine species, closely allied to the North-American *A. impuncticollis*, Say.

Subfam. *PTEROSTICHINÆ*.

EVARTHUS.

Evarthrus, Leconte, Journ. Acad. Nat. Sci. Phil. 1852, ii. p. 228.

All the species hitherto described, twenty-five in number, belong to temperate North America. The following belongs to the section in which the penultimate joint of the labial palpi has two setæ only. According to Dr. Horn, this section should be merged in *Pterostichus*; it is probable, however, that a new genus will eventually be formed for its reception.

1. ***Evarthrus constrictus***. (Tab. IV. fig. 4.)

Subgracilis, convexus, niger nitidus, antennis, palpis et pedibus piceo-rufis; capite mox pone oculos angustato, foveis frontalibus linearibus fortiter impressis; thorace suborbiculari, ante angulos posticos subito sed oblique angustato, angulis anticis distinctis, posticis obtusis, fovea basali utrinque profunda, linea dorsali ante basin dilatata profundiusque exarata; elytris ovatis, humeris nullis, striis fortiter (ante apicem et stria 7^a subtilius) punctatis, interstitiis vix convexis, 3^o post medium unipunctato.

Long. $5\frac{1}{4}$ lin. ♀.

Hab. MEXICO (*Sallé*).

The single example bears the MS. name of *Steropus convexus*, Chev., in the Sallé collection; but it is closely allied to a North-American species of *Evarthrus*.

PERCOLAUS.

Gen. *Perco* affinis. Elongatus, convexus. Caput exsertum, elongatum, post oculos tumidum; collum crassum; foveæ frontales modice elongatæ, profundæ; sulculus intraocularis modice impressus; oculi parvi, vix prominentes. Antennæ filiformes, normales. Mandibulæ quam in *Perco* longiores et graciliores, haud striatæ. Mentum medio convexum, utrinque profunde concavum; epilobia acuta, dente lato valde emarginato. Palpi elongati, articulis ultimis linearibus maxillarium apice truncatis, labialium articulo penultimo bisetosus. Thorax elongatus, quadratus, postice angustatus. Elytra basi, juxta humeros excepta, immarginata; interstitia absque punctis. Prosternum apice obtusum. Metasterni episterna brevia. Ventris segmenta simplicia. Tarsi ♂ nec dilatati nec subtus squamulati.

Resembles the European genus *Percus* in the obliteration of the basal fold of the elytra, a small portion only remaining near the shoulders. It differs, however, in many points, the chief of which is the simple anterior tarsi of the male. The tumid posterior orbit of the eyes is much more elongated than in any species of *Percus* known to me; and the mandibles are longer and more slender. The anterior tibiæ are not produced externally at the apex.

The genus is exceedingly interesting, as partly bridging over the difference between the *Pterostichinæ* and the *Morioninæ*.

1. ***Percolaus championi***. (Tab. IV. fig. 5.)

Niger, nitidus, thorace elytris multo angustiore, elongato quadrato, postice angustato, angulis posticis rectis

dentatis, margine laterali reflexo intus sulculo a dorso separato, dorso transversim striolato, basi utrinque fovea magna transversa; elytris postice subdilatatis, convexis, punctato-striatis, interstitiis convexis; segmento apicali ventrali utrinque ♂ uni-, ♀ bipunctato.

Long. 8–10 lin. ♂ ♀.

Hab. GUATEMALA, Totonicapam (*Champion*).

ALLOTRIOPUS.

Feronia, subg. *Pristoscelis*, Chaudoir, Bull. Mosc. liii. 1878, p. 71 (nom. subgen. præocc.).

Among the characters which Chaudoir pointed out as distinguishing this subgenus, the most important is the curved and inwardly serrated hind tibiæ of the male. The hind legs are relatively long, and their femora thick, in addition to which the hind trochanters are unusually long and pointed. The genus is allied in many respects to *Hypherpes*; but the elytra have a large puncture (which fails in some individuals) on the third interstice. The insect on which the genus is founded is not unlike a miniature *Hyperion schröteri*, to which it is certainly allied.

1. *Allotriopus serratipes*. (Tab. IV. fig. 7.)

Feronia (Pristoscelis) serratipes, Chaudoir, loc. cit. p. 71¹.

Hab. MEXICO¹.

HYPHERPES.

Hypherpes, Chaudoir, Bull. Mosc. 1838, i. pp. 8 et 13.

A group peculiar, as far as at present recorded, to North America, and regarded by American entomologists as simply a section of *Pterostichus*. The species are nearly all of elongate parallelogrammic shape, and distinguished by the absence of the usual large punctures on the elytral interstices. Crotch, in his 'Check List of Col. Amer. N. of Mexico,' in 1874 enumerated twenty-one species as belonging to it; and many more have been described since then. The following are the only members yet known from south of the United-States boundary.

1. *Hypherpes brachypterus*. (Tab. IV. fig. 8.)

Feronia (Hypherpes) brachyptera, Chaudoir, Bull. Mosc. liii. 1878, p. 70¹.

Hab. MEXICO¹, Parada (*Sallé*).

2. *Hypherpes longissimus*. (Tab. IV. fig. 6.)

Valde elongatus, angustus, castaneus, nitidus; palpis apice gradatim subacuminatis; capite ut in *H. angusto* angusto, oculis parvis haud prominentibus, genis tumidis post oculos elongatis; thorace elongato-quadrato, postice gradatim haud sinuatim et modice angustato, basi utrinque paullo sinuato angulisque posticis retrorsum paullo productis, fovea utrinque basali valde elongata sed medio fere interrupta; elytris anguste oblongis, humeris fere rectis haud dentatis, fortiter striatis, interstitiis convexis.

Long. 5 lin. ♂.

Hab. GUATEMALA, Totonicapam (*Champion*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, April 1882.

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A species still more elongated than *H. angustus* of California, and further distinguished by the remarkable incurvation of the hind margin of the thorax on each side, by which the angles (obtuse at their apices) appear produced; the sides are very slightly incurved before the angles, and very slowly but considerably rounded from the middle forwards.

3. *Hypherpes tæniola*.

H. angusto similis. Parvus, angustus, parallelogrammus, castaneus, nitidus; capite angusto, foveis frontalibus parum impressis; oculis parvis, vix prominentibus, genis post oculos minime tumidis elongatis; palpis apice gradatim angustatis, subacutis, maxillaribus compressis; thorace elongato-quadrato, ante medium perparum rotundato-dilatato, angulis anticis a collo distantibus acutis, posticis rectis vel subacutis, margine basali utrinque recto, fovea basali utrinque lineari lævi; elytris humeris dentatis, acute punctulato-striatis, striola scutellari obsoleta, interstitiis usque ad apicem planatis, puncto umbilicato ad striæ septimæ apicem, altero multo majore ad octavæ apicem.

Long. $3\frac{1}{2}$ lin. ♀.

Hab. GUATEMALA, Quiche Mountains (*Champion*).

Differs from *H. angustus* by the hind margin of the thorax being rectilinear on each side to the posterior angle, and the anterior angles being distant from the sides of the neck, by which the anterior curvature of the sides is not so strongly pronounced; also by the flattened interstices of the elytra, and much more pointed terminal joints of the palpi. The large apical puncture or fovea of the eighth stria is of great size and open behind.

4. *Hypherpes ampliatus*.

In hoc genere brevis, elytris postice paullo dilatatis et convexis; niger, nitidus, antennis, palpis et tarsis piceo-rufis; capite ovato, genis circa oculos sat tumidis elongatis, oculis parvis haud prominentibus; thorace latius quadrato, fere sicut in *H. amethystino*, angulis posticis rectis haud extantibus, margine basali utrinque paullulum obliquo, dorso lævissimo, versus angulos posticos planato, fovea basali utrinque elongata; elytris oblongis, postice paullo dilatatis, sed apud basin haud angustatis, humeris sat rectis dentatis, argute et valde striatis, interstitiis modice convexis, stria marginali haud duplicata.

Long. $4\frac{1}{2}$ lin. ♀.

Hab. MEXICO, Jalapa (*Flohr*).

Of shorter and less parallelogrammic form than the rest of the genus; but the elytra, although relatively short and gradually (but slightly) dilated behind (♀), have not a subovate shape as in *H. adoxus*, the base being relatively broad, and the lateral meeting the basal margin at an angle only moderately obtuse.

PLATYSMA.

Platysma, Bonelli, Obs. Ent. i. 1809, tabl. synopt.

Pterostichus, § *Platysma*, Schaum, Naturgeschichte Ins. Deutschl. i. 1, p. 464 (1860); Crotch,

Check List N. Am. Col. p. 14 (1874).

Bothriopterus, Chaud. Bull. Mosc. 1838, i. p. 14.

A small group, to which modern authors refuse generic rank, consisting of a limited

number of species characteristic of high northern latitudes, one species being a member of the limited coleopterous fauna of Iceland. In facies they resemble many species of the restricted genus *Pterostichus*, from which they are distinguishable by the longer and narrower episterna of the metathorax. The following species has a very great resemblance to the European *P. oblongopunctata*, from which it differs, *inter alia*, in the metathoracic episterna being conspicuously longer and narrower.

1. **Platysma tropicalis.** (Tab. IV. fig. 9.)

P. oblongopunctata similis; ænescenti-nigra, palpis, antennis pedibusque rufescenti-piceis; capite ut in illa specie; thorace transverso, lateribus fortius rotundatis ante basin valde sinuatis, angulis posticis acutis, extantibus, anticis fortiter deflexis, basi punctatis, fovea lineari profunda; elytris tenuiter, plus minusve punctulato, striatis, interstitiis planis, utrinque trifoveatis; tarsis posticis articulis 1^o-4^m utrinque sulcatis. Long. 5 lin. ♂ ♀.

Hab. MEXICO, Las Vigas, Oaxaca (*Höge*).

The elytral foveæ have each in the centre, as in the allied species, an umbilicated puncture. The first puncture is situated close to the third stria, the second and the third near to the second stria, but all on the third interstice. As in *P. oblongopunctata* the lateral rim of the thorax is much elevated near the base, and the projecting hind angle is formed by an extension of the rim, on which is the customary setiferous puncture.

PIESMUS.

Piesmus, Leconte, Ann. Lyc. N. York, iv. p. 340 (1848); id. Proc. Ac. Nat. Sci. Phil. 1873, p. 302.

A genus retained as distinct by Dr. Leconte in his latest revision of the Pterostichinæ of the United States, on account of the simple tooth of the mentum. The following is the only known species:—

1. **Piesmus submarginatus.**

Feronia submarginata, Say, Trans. Am. Phil. Soc. i. p. 45 (1823).

Piesmus submarginatus, Leconte, loc. cit. p. 303¹.

Pæcilus monedula, Germar, Ins. Sp. Nov. p. 18 (1824).

Hab. NORTH AMERICA, Southern States¹.—MEXICO (*Sallé*).

There is one example of this species in the Sallé collection, named *Platysma crenata*, Chev. (MS.)

OPHRYOGASTER.

Feronia, subgen. *Ophryogaster*, Chaudoir, Bull. Mosc. liii. 1878, p. 60.

Two species of this genus have been described by Chaudoir—one from Mexico, and the other from Ecuador. They are allied to *Pachymorphus*, a numerous genus peculiar to extratropical South America, differing chiefly in the three terminal ventral segments being grooved transversely.

1. *Ophryogaster anomalus*.

Feronia (*Ophryogaster*) *anomala*, Chaudoir, loc. cit. p. 60¹.

Hab. MEXICO (*Deyrolle*¹).

2. *Ophryogaster flohri*.

O. anomalus multo minor et gracilior; gracilis, niger, politus, antennis, palpis pedibusque piceis, illis articulis duobus basalibus, palpis articulis apicalibus femoribusque castaneo-rufis; mandibulis elongatis, minus curvatis; capite lævi, foveis frontalibus acutissime et profunde insculptis, leviter curvatis; thorace elongato-cordato, antice modice rotundato-dilatato, versus apicem sat angustato, angulis anticis deflexis, collo approximatis, postice valde sinuatim angustato, angulis posticis acutis, supra lævissimo, lineis impressis fere obsolete fovea utrinque basali lineari profunda excepta; elytris oblongis, convexis, acute striatis, interstitiis subconvexis absque punctis, striola scutellari nulla, sed fovea umbilicata prope basin striæ secundæ conspicua.

Long. 4½ lin. ♂.

Hab. MEXICO (*Flohr*).

I have no record of the special locality in which Mr. Flohr took this species. It formed part of the first collection sent, and was probably found near Mexico city.

PÆCILUS.

Pæcilus, Bonelli, Obs. Ent. tabl. synopt. (1809); Chaudoir, Monographic du g. *Pæcilus*, l'Abeille, 1875.

Pterostichus, partim, Leconte, Proc. Ac. Nat. Sci. Phil. 1873, pp. 302, 307.

A genus peculiar to the temperate zone of the northern hemisphere. Chaudoir described forty-nine species as belonging to it; but since the date of his monograph many others have been described. Like many other northern genera, it passes into intratropical latitudes only in North America.

1. *Pæcilus mexicanus*.

Pæcilus mexicanus, Chaudoir, l'Abeille, 1875, p. 44¹.

Hab. MEXICO¹, Guanajuato (*Dugès*, coll. *Sallé*), Oaxaca (*Hüge*).

2. *Pæcilus cyanicolor*.

Pæcilus cyanicolor, Chaudoir, l'Abeille, 1875, p. 43¹.

Pæcilus cyanicolor, var. *connexus*, id. ibid.

Pæcilus cyaneus, Leconte, Ann. Lyc. N. York, iv. p. 231².

Hab. NORTH AMERICA, Rocky Mountains^{1 2}.—MEXICO¹, Valle del Maiz (*Dr. Palmer*), near the city (*Flohr*), Jalapa (*Höge*).

EUCHROA.

Euchroa, Brullé, Hist. Nat. Ins. iv. p. 335 (1834).

Dyschromus, Chaudoir, Ann. Soc. Ent. Fr. 1835, p. 429.

Seven species of this well-marked genus are known, all Tropical American, one

species extending to the banks of the Plata. The genus belongs to a group almost entitled to the rank of a subfamily, the labial, and sometimes also the maxillary, palpi being more or less securiform.

1. **Euchroa dimidiata.** (Tab. IV. fig. 11.)

Euchroa dimidiata, Chaudoir, Bull. Mosc. xlv. 2, p. 279 (1874)¹.

Hab. MEXICO, Oaxaca (*Sallé*¹, *Höge*), Parada, Istepec (*Sallé*).

2. **Euchroa nitidipennis.** (Tab. IV. fig. 10.)

Euchroa nitidipennis, Putzeys, Mém. Soc. Roy. Sci. de Liège, ii. 1846, p. 403¹.

Hab. MEXICO¹, Orizaba, Jalapa, Maltrato (*Sallé*), Las Vigas (*Höge*).

Nearly all the numerous examples taken by Höge at Las Vigas present a form of thorax slightly different from the Maltrato and Orizaba specimens of Sallé, the difference consisting in the stronger arcuation of the sides before and near the middle, by which the posterior narrowing is rendered less gradual. A Jalapa example is intermediate in this respect. The size varies greatly, from $4\frac{1}{3}$ to $6\frac{1}{2}$ lines (9–14 millim.). The colour of the thorax in all is violet. Although the convexity of the elytral interstices varies in degree, they are always more or less flattened towards the apex, a character which distinguishes the species from *E. sallæi*.

3. **Euchroa flohri.**

E. nitidipenni valde affinis, sed differt capite et thorace læte æneo-viridibus elytris splendide aurato-cupreis; capite sicut in *E. nitidipenni*; thorace fere quadrato, ante apicem tantum leviter rotundato-dilatato; elytris profunde striatis, interstitiis convexis, prope apicem haud angustioribus; corpore subtus pedibusque cyaneis. Long. $5\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Quecholac (*Flohr*).

In colours similar to *E. dimidiata*, but in form much more slender and the prosternum not margined between the anterior coxæ.

4. **Euchroa sallæi.**

Euchroa sallæi, Chaudoir, Bull. Mosc. xlv. 2, p. 280¹.

Hab. MEXICO¹, Cordova (*Sallé*).

ABARIS.

Abaris, Dejean, Sp. Gén. Col. v. p. 780 (1831).

Abarys, Chaudoir, Bull. Mosc. xlvii. p. 96 (1874).

As restricted by Chaudoir, this genus contains six species (two unknown to him—*A. picipes* and *A. striolata*, Bates), all Tropical American. The claws of the tarsi are finely pectinated. It is not closely allied to any of the preceding genera of the subfamily.

1. *Abaris æquinoctialis*.

Abaris æquinoctialis, Chaudoir, Bull. Mosc. xlvii. p. 98 (1874)¹.

Hab. MEXICO, Yucatan¹; GUATEMALA, Zapote, Cerro Zunil, El Tumbador (*Champion*); NICARAGUA, Chontales (*Belt, Janson*).

2. *Abaris bigenera*. (Tab. IV. fig. 12.)

A. æquinoctiali multo major, *Pseudabarydi substriato* simillima, differt unguibus breviter denticulatis, thorace postice angustato etc. Fusco-ænea vel ænea, nitida; antennis rufescentibus, articulis plerumque apice obscuris; pedibus rufo-piceis; capite mox pone oculos fortiter angustato, oculis magnis prominentibus; thorace antice sat rotundato-dilatato, postice modice angustato, lateribus prope angulos posticos leviter sinuatis, angulis extantibus sed obtusis, foveis utrinque duabus, interiore longiore et profundiore, interspatio distincte punctato; elytris fortiter striatis, striola scutellari elongata profunda, interdum abbreviata, interstitiis convexis, 2^o-4^m versus apicem latioribus et planioribus, 3^o et 7^o versus basin angustioribus, 3^o post medium unipunctato.

Long. 3½ lin. ♂ ♀.

Hab. MEXICO, Oaxaca (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

PSEUDABARYS.

Pseudabarys, Chaudoir, Bull. Mosc. xlvii. p. 99 (1874).

Six species were enumerated by Chaudoir as belonging to this genus, which is similar in range to *Abaris*. Although very closely allied to *Abaris*, it differs in the tarsal claws being simple. The lateral margin of the elytra is interrupted near the apex, and a plica or sharp ridge extends for a short distance from the apical edge of the breach along the under surface, a character which proves the genus to belong to the Pterostichinæ rather than the Platyninæ. Its nearest ally in the New World is probably *Ophryogaster*; but, as Chaudoir points out, it approximates more closely to such genera as *Orthomus* of the Mediterranean, and *Simodontus* and *Ceneus* of the Australian, faunas.

1. *Pseudabarys mexicanus*.

Pseudabarys mexicanus, Chaudoir, Bull. Mosc. xlvii. p. 101 (1874)¹.

Hab. MEXICO¹, Cordova (*Sallé*).

2. *Pseudabarys substriatus*.

Pseudabarys substriatus, Chaudoir, Bull. Mosc. xlvii. p. 103 (1874)¹.

Hab. MEXICO, Cuernavaca (*Boucard*¹), Yolos (*Sallé*), Oaxaca (*Höge*).

LOXANDRUS.

Loxandrus, Leconte, Journ. Ac. Nat. Sci. Phil. n. s. ii. p. 252 (1852); Chaudoir, Rev. et Mag. Zool. 1868, p. 342; Bates, Ent. M. Mag. viii. 1871, p. 104; Horn, Trans. Amer. Ent. Soc. 1881, p. 139.

About fifty species of this extensive genus have been described from America, north

and south. It occurs in the temperate as well as tropical zones; and a few species are known from Australia and Celebes.

1. *Loxandrus tetrastigma*. (Tab. IV. fig. 13.)

Loxandrus tetrastigma, Bates, Ent. M. Mag. viii. 1871, p. 131¹.

Hab. GUATEMALA, Zapote (*Champion*); NICARAGUA, Chontales (*Belt*).—SOUTH AMERICA, Upper Amazons¹.

2. *Loxandrus unistigma*.

Parvus, nitidus, leviter iridescens, elytrorum sutura prope apicem macula communi ovali margineque apicali fulvis; antennis rufo-fuscis, articulis 3 basalibus, palpis et pedibus fulvo-testaceis, foveis frontalibus brevibus subrotundatis; thorace subquadrato, lateribus modice arcuatis, antice citius quam postice angustato, angulis anticis deflexis obtusis, posticis obtusis sed breviter denticulatis, supra lævi, lineis vix impressis, fovea utrinque lineari acute insculpta excepta; elytris argute striatis, striis usque ultra medium punctulatis, interstitiis planatis; macula suturalis variat, interstitia utrinque 3, 2 vel 1 tegens.

Long. 3 lin. ♂ ♀.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Differs from other species of *Loxandrus* having a similar tawny sutural spot by the smaller and narrower thorax, the anterior angles of which are so much deflexed that they are not visible from above. The lateral margin of the thorax is not expanded or in the least sinuated towards the hind angle, which would be nearly rounded if it were not for a slight projection of the rim; the latter is continued along the base for some distance on each side.

3. *Loxandrus infimus*.

Angustus, niger, antennis et pedibus piceis, illis basi palpisque rufescentibus; foveis frontalibus parvis subrotundatis; thorace paullo elongato, postice modice angustato, antice leviter rotundato-dilatato, angulis anticis deflexis obtusis, posticis acutis, margine ante angulum paullulum sinuato, supra sulculo anteriore acute insculpto tenui prope marginem sito, basi grosse sparsim punctato, fovea utrinque lata profunda; elytris punctato-striatis (punctis versus apicem minus conspicuis), interstitiis planatis.

Long. $3\frac{1}{4}$ – $3\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Cubilguitz (*Champion*).

The present species has a great general resemblance to *Argutor strenuus*.

ADRI-MUS.

Adrimus, Bates, Ent. M. Mag. viii. 1871, p. 176.

Five species only of this very distinct genus have hitherto been recorded, all from the Amazons.

1. *Adrimus olivaceus*. (Tab. IV. fig. 14.)

A. crepero proxime affinis; differt thoracis angulis posticis extantibus elytrisque profundius striatis. *Anchomeno* (*Agono*) *viduo* similis, parum convexus, olivaceo-æneus, nitidus; antennis, palpis pedibusque piceo-rufis; tarsi, palpis apice antennisque basi pallidioribus; thorace antice rotundato-angustato, postice subrecte

modice angustato, angulis posticis extantibus, anticis deflexis obtusis collum fere amplectentibus, sulculo anteriore (ut in cæteris *Adrimis*) arcuato acute insculpto, basi sparsissime grosse punctata, fovea utrinque lineari magna profunda, margine laterali postice paullulum explanato-elevato; elytris profunde et acute striatis, striis fundo haud conspicue punctulatis; metasterno sulculo submarginali posteriore fere integro. Long. $3\frac{3}{4}$ lin. ♂.

Hab. GUATEMALA, Cubilguitz (*Champion*).

Mr. Champion sent home one example only; the species of *Adrimus* appear to be everywhere rare insects.

STOLONIS.

Stolonis, Motschulsky, Bull. Mosc. 1865, ii. p. 230; Bates, Ent. Monthly Mag. viii. p. 148 (1871);

Chaudoir, Bull. Mosc. xlvii. p. 85 (1874).

Anchomenus, partim, Dej. Sp. Gén. Col. iii. p. 125.

Anchonoderus, partim, Reiche, Rev. Zool. 1843, p. 38.

Chaudoir enumerated eleven species as belonging to this genus, which is exclusively Tropical American. Although resembling *Anchomenus* in its general slender figure, it does not belong to the same subfamily as that genus, as shown by the interrupted margin of the elytra. The penultimate joint of the labial palpi is bisetose.

1. *Stolonis intercepta*. (Tab. IV. fig. 15.)

Stolonis intercepta, Chaudoir, loc. cit. p. 87¹.

Hab. MEXICO, Cordova (*Sallé*), Yucatan (*Pilate*¹),

Subfam. MORIONINÆ.

The position of this subfamily was strangely misunderstood by the older authors. It has a close affinity with the Pterostichinæ, especially the genera *Hypherpes*, *Percolaus*, and *Percus*, being distinguished chiefly by the fore tibiæ being much dilated at the apex, with the exterior angle produced, and by the short tarsi and antennæ. The latter organs vary in the number of glabrous basal joints. *Hyperion* and *Melisodera* have four; *Platynodes*, *Morio*, and *Buderes* also four, with the exception that the apex of the fourth joint is more or less pubescent; but *Stereostoma*, *Stereodema*, and *Moriosomus* have only three. The antennæ, however, are abnormal both in the form of the joints and in their pubescence; joints fourth to eleventh being more or less compressed, and glabrous in the middle of both the flattened surfaces. This structure is observable also in the Broscinæ and many Scaritinæ, and seems to be associated with the confined abodes and sedentary habits of the species—the Morioninæ living concealed either in ants' nests or under the loose bark of trees, where they are frequently found associated with *Passali*, on the larvæ of which they probably feed.

MORIO.

Morio, Latreille, Consid. Génér. s. l. Ins. 1810, tabl. méth.; Chaudoir, Bull. Mosc. 1854, ii. p. 323.

About thirty species have been described of this genus, which occurs in tropical and subtropical latitudes in both hemispheres, including Australia.

1. *Morio georgiæ*.

Scarites georgiæ, Palisot de Beauvois, Ins. Afr. et Amér. p. 107, t. 15. f. 5 (1805)¹.

Harpalus monilicornis, Latreille, Gen. Crust. et Ins. i. p. 206 (1806).

Morio monilicornis, Dej. Spec. Gén. Col. i. p. 430².

Morio cordatus, Chaudoir, Bull. Mosc. 1837, ii. p. 13³; id. ibid. 1854, ii. p. 325; Chevrolat, Mag. Zool. 1841, Ins. 64-5. no. 209⁴.

Morio equatorius, Reiche, Rev. Zool. 1842, p. 377⁵; Chaudoir, Bull. Mosc. 1854, ii. p. 325⁶.

Hab. NORTH AMERICA^{1 2}.—MEXICO^{3 4}, Cordova, Vera Cruz, Playa Vicente, Tuxtla, Santecomapan (*Sallé*), Ventanas (*Forrer*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Lanquin, Mirandilla, near the city, El Tumbador, Chacoj, Teleman, Tamahu, El Reposo, Las Mercedes (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Matachin (*Schunke*).—WEST INDIES², Cuba; SOUTH AMERICA, Colombia^{5 6} to South Brazil².

2. *Morio simplex*.

Morio simplex, Dejean, Sp. Gén. Col. ii. p. 481¹, et v. p. 512²; Chaudoir, Bull. Mosc. 1854, p. 327³.

Hab. MEXICO (*Deyrolle*), Yucatan (*coll. Bates*); GUATEMALA, El Reposo, El Tumbador (*Champion*).—SOUTH AMERICA^{1 2 3}.

Mexican and Central-American individuals are smaller than the average of those I have seen from South America, and have the thorax considerably more narrowed before the posterior angles; the differences, however, are not greater than those seen in specimens of *M. georgiæ* taken in one and the same locality.

3. *Morio lafertei*. (Tab. IV. fig. 16.)

Morio lafertei, Guérin, Rev. Zool. 1844, p. 254¹.

Morio spiniger, Chaudoir, Bull. Mosc. 1854, ii. p. 331².

Hab. MEXICO^{1 2}, Sonora (*coll. Bates*), Cordova, Oaxaca (*Sallé*), Jalapa (*Flohr*).

Taken by Mr. Flohr in ants' nests.

MORIOSOMUS.

Moriosomus, Motschulsky, Bull. Mosc. 1864, iii. p. 198.

The following is the only known species of this genus:—

1. *Moriosomus sylvestris*. (Tab. IV. fig. 19.)

Moriosomus sylvestris, Motschulsky, Etud. Ent. 1855, p. 19, t. 1. f. 2; id. Bull. Mosc. 1864, iii. 199¹.

Hab. NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Obispo¹.

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, June 1882.

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Subfam. *CATAPIESINÆ*.

I separate this subfamily from the Cratocerinae (Cratocérides, Chaudoir) solely on account of the truncate elytra. In both groups the subapical margin of the elytra is uninterrupted and destitute of internal plica, a character which distinguishes them from the Pterostichinae and Morioninae (to the latter of which they have otherwise a near affinity). The subfamily consists of two genera only—*Homolomorpha* of South America, and *Catapiesis*.

CATAPIESIS.

Catapiesis, Brullé, Hist. Nat. Ins. v. p. 42 (1835); Solier, Ann. Soc. Ent. Fr. 1836, p. 595.

Basoleia, Westwood in Guér. Mag. Zool. 1835.

Basolia, Chaudoir, Bull. Mosc. 1854, ii. p. 347.

Axinophorus, Gray, in Griffith's An. King. Ins. i. p. 271 (1832) (nec *Axinophorus*, Dej. 1822).

Hololissus, Mannerheim, Bull. Mosc. 1837, ii. p. 43.

Five species of this remarkable genus have been described, all Tropical-American, North and South.

1. *Catapiesis mexicana*. (Tab. IV. fig. 17.)

Basolia mexicana, Chaudoir, Bull. Mosc. 1854, ii. p. 349¹.

Hab. MEXICO¹, Cordova (*Sallé*); NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).

2. *Catapiesis sulcipennis*.

Minor, oblonga, nigra, nitida, antennis rufo-fulvis, labro, palpis pedibusque picescenti-rufis; thorace brevi valde transverso, antice mox pone angulos latissimo, deinde usque ad basin curvatim angustato, angulis anticis nullo modo productis, rotundatis, posticis subrectis margine paullo ante basin breviter sinuato, fovea utrinque basali profundissima; elytris sulcato-striatis, stria 1^a ad basin multo abbreviata, cæteris basin fere attingentibus, interstitiis convexis.

Long. 6¼ lin. ♂.

Hab. MEXICO, Tuxtla (*Sallé*).

Subfam. *CRATOCERINÆ*.

Two described genera only remain in this subfamily, as defined by Chaudoir, viz. *Brachidius* from Tropical Asia and *Cratocerus* from Tropical America; but it is possible many Old World species considered as Drimostominæ may belong to it.

CRATOCERUS.

Cratocerus, Dejean, Sp. Gén. Col. iv. p. 12; Chaudoir, Ann. Soc. Ent. Belg. xv. (Essai Mon. s. l. *Drimostomides et Cratocérides*), p. 17.

Two species only of this genus are at present known, both widely distributed in Tropical America.

1. **Cratocerus sulcatus.** (Tab. IV. fig. 18.)

Cratocerus sulcatus, Chaudoir, Bull. Mosc. 1852, i. p. 77¹.

Hab. MEXICO¹, Cordova (*Sallé*).—SOUTH AMERICA to S. Brazil¹.

Subfam. *ANCHOMENINÆ*.

Dr. Horn, in his recent treatise on the Carabidæ, has made known a character which seems effectually to distinguish this family (Platynini of American entomologists) from the Pterostichinæ, thus supplying a desideratum which has been felt by systematists from the days of Dejean and Erichson downwards. It is drawn from the subapical margin of the elytra, which in the Anchomeninæ is continuous, and in the Pterostichinæ interrupted, the severed apical portion of the margin continuing as a sharp ridge along the under surface of the elytra. It is true that there are indications of the ridge in the Anchomeninæ; but it is faintly elevated, and not distinctly continuous with the apical part of the margin. Both subfamilies are well represented in the faunas of temperate latitudes, and have been the subject of an immense amount of descriptive literature in Europe and North America.

CALATHUS.

Calathus, Bonelli, Obs. Ent. i. 1809, tabl. synopt.

M. Putzeys, in a recent monograph of *Calathus* and the allied genera, has described 82 species of true *Calathi*. With the exception of a few found in temperate North America, and the following in Mexico, all belong to the Palæarctic fauna. The Mediterranean subprovince seems to be their head quarters.

1. **Calathus ovipennis.** (Tab. IV. fig. 20.)

Calathus ovipennis, Putzeys, Monogr. d. Calathides, p. 71¹.

Hab. MEXICO¹, Capulalpam, San Antonio de Arriba (*Sallé*).

2. **Calathus mexicanus.**

Calathus mexicanus, Chaudoir, Bull. Mosc. 1837, no. 7, p. 20; Putzeys, Monogr. d. Calathides, p. 61.

Hab. MEXICO, Jacale (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), Las Vigas, Oaxaca (*Höge*).

PLATYNUS.

Platynus, Bonelli, Obs. Ent. i. 1809, tabl. syn.; Dejean, Sp. Gén. Col. iii. p. 96.

Rhadine, Leconte, Geod. Col. U. States, p. 46.

Anchomenus, Bon. (partim), Schaum, Ins. Deutsch. Col. i. 1, p. 403.

To the definition of this genus given by Dejean may be added—metathoracic

episterna short and broad. *Platynus* has been generally treated by modern authors as a section only of a much larger genus, for which many European entomologists have adopted the name *Anchomenus* (Bonelli), and American entomologists that of *Platynus* of the same author. The characters which distinguish it from the true *Anchomeni* seem to me sufficiently important to warrant generic separation, although the limits of the two genera may not be rigidly defined.

The more typical species of *Platynus* are limited in number and found in the south of Europe; but others, receding in one or other points of structure, occur in North America and in New Zealand; one group, which presents peculiarities of its own, was separated as a genus by Leconte under the name of *Rhadine*, which he has since withdrawn.

1. *Platynus montezumæ*. (Tab. IV. fig. 24.)

Anchomenus montezumæ, Bates, Proc. Zool. Soc. 1878, p. 593¹.

“Elongatus, gracilis, piceo-niger; capite ovato; oculis haud prominentibus, orbitu posteriore sensim angustato; thorace elongato, truncato-cordato, lateribus explanato-reflexis, angulis posticis rectis; elytris convexis, elongato-ovatis, punctulato-striatis, apice oblique sinuatis, marginibus basali et laterali explanato-reflexis; pedibus elongatis.

“Long. $4\frac{1}{2}$ – $5\frac{1}{2}$ lin.”

Hab. MEXICO, near the capital (*Flohr*)¹, Cumbre del Pelado, San Antonio de Arriba (*Sallé*), Esperanza (*Höge*).

Named *Pristonychus mexicanus*, Chaudoir, MS., in the Sallé collection. The species, in fact, resembles a small *Pristonychus* in its elongate slender form and long legs; but it has none of the generic characters of that group: the claws are simple; and the elytra are marked with the large punctures on the third interstice distinctive of the Anchomenid series, but wanting in *Pristonychus* and its allies. They are small and faintly impressed, and likely to be overlooked, but nevertheless exist in all the examples, viz. one (anterior) near the third stria, and two (posterior) near the second stria. The species differs from European *Platyni* in its elongate, narrow, and somewhat convex elytra.

2. *Platynus leptodes*. (*Platynus leptomorphus*, Tab. IV. fig. 25.)

Gracillimus, castaneo-rufus, capite elytrisque fuscis (immature toto rufescente); capite longissimo et angustissimo, palpis articulo terminali setoso; antennis articulo tertio quam quartus distincte longiore; thorace valde angustato, angulis anticis haud prominentibus, posticis acutis, lateribus antice paullo rotundatis postice gradatim ante angulum leviter sinuatis, margine laterali anguste reflexo, basali incurvato; elytris elongato-ovatis, subconvexis, sed margine explanato acuto, humeris nullis, apice oblique subtruncatis, angulis suturalibus acutis dehiscentibus, sericeo-opacis, striatis, interstitiis vix elevatis tertio punctis 5 inconspicuis; tarsis omnibus supra sulcatis.

Long. $4\frac{1}{4}$ lin. ♂.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

This singular species resembles, at first sight, the blind Cave-beetles (*Anophthalmus*).

Together with the following it presents all the characters of Leconte's genus *Rhadine* in a typical degree—the acuminate and dehiscent apices of the elytra, lengthened third joint of the antennæ, and grooved fore (as well as hinder) tarsi. In any revision of the Anchomeninæ group of the whole world this genus would doubtless be reinstated.

3. *Platynus euprepes*.

Castaneo-rufus; *P. larvali* (Lec.) paullo minor et gracilior, capite angustiore postice gradatim attenuato; thorace anguste ovato, angulis anticis rotundatis haud prominentibus, posticis obtusis fere rotundatis, margine basali medio sinuato, laterali modice æqualiter explanato, minus quam in *P. larvali* reflexo; elytris elongato-ovatis, apice oblique vix sinuatim truncatis, angulis suturalibus subacuminatis dehiscen-
tibus, margine laterali explanato acuto, dorso fortiter striatis, interstitiis paullo convexis, tertio 4-punctato; tarsis omnibus supra sulcatis; antennis articulo tertio quam sequens conspicue longiore.

Long. 6 lin. ♂ ♀.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

Distinguished from *P. leptodes* by its larger size and the form of the thorax, which is elongate-oval, with explanated side margins and posterior angles blunt instead of acute, the basal margin being emarginated only in the middle instead of being incurved from angle to angle. The fore part of the thorax is strongly narrowed to the obtuse anterior angles; the front edge is consequently very much less broad than in *P. larvalis*.

ANCHOMENUS.

Anchomenus, Bonelli, Obs. Ent. i. 1809, tabl. synopt.

Agonum, id. ibid.

Anchomenus (partim), Schaum, Ins. Deutsch. Col. i. 1, p. 404.

Platynus (partim), Leconte, Bull. Brooklyn Ent. Soc. ii. 1879, p. 45.

Sericoda, Kirby, Fauna Boreali-Americana, iv. p. 14.

After the separation of *Platynus* and one or two other groups, which seem to be sufficiently distinct, there still remain about 300 described species in this well-known and widely-distributed genus. The great majority are confined to temperate latitudes, in the southern as well as the northern hemisphere. Many species occur in South Brazil and in Northern India and in Mexico; but extremely few are found in the equatorial zone of either hemisphere.

1. *Anchomenus extensicollis*.

Feronia extensicollis, Say, Trans. Am. Phil. Soc. ii. 1823, p. 54¹.

Anchomenus extensicollis, id. ibid. iv. 1834, p. 421; Dejean, Sp. Gén. Col. iii. p. 113².

Platynus extensicollis, Leconte, Complete Writings Th. Say, ii. p. 478.

Var. *Anchomenus elongatulus*, Dej. Sp. Gén. Col. iii. p. 112³.

Hab. NORTH AMERICA^{1 2 3}.—MEXICO, Orizaba, Puebla (*Sallé*), Jalapa (*Höge*).

All the Mexican examples I have seen have dark legs and antennæ, and dull bronzed elytra, thus agreeing with Dejean's description of his *A. elongatulus*.

2. *Anchomenus cyanopis*.

Gracilis, niger, subopacus, plus minusve cyanescens, capite thoraceque interdum cyaneis, antennis palpis et pedibus piceo-nigris; capite ovali; thorace quam caput multo latiore, ovato, angulis posticis fere obsolete, lateribus leviter arcuatis postice magis quam antice angustato, margine laterali tenui, postice perparum explanato vix elevato, supra toto lævi, foveis basalibus fundo distincte impressis; elytris gracilibus, apice oblique sinuatis, argute striatis, interstitiis planis vel paullo elevatis, tertio 5-punctato, punctis posterioribus plerumque in medio interstitio sitis.

Long. 4 lin. ♂ ♀.

Hab. MEXICO, Puebla (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), Mexico city (*Flohr*).

This species is confounded with *A. alcyoneus* in the *Sallé* collection; and I received it many years ago from Paris under the same name; but it is perfectly distinct, and more nearly allied to *A. extensicollis* than to *A. tristis*, to which *Chaudoir* justly compared his *alcyoneus*. The form of the thorax is totally different, being a slender oval, with lateral margins scarcely dilated or reflexed, and the surface nearly plane, the same member in *alcyoneus* being transverse oval or suborbicular, with lateral margins behind so much expanded and reflexed that the base of the thorax is rendered concave.

3. *Anchomenus alcyoneus*.

Agonum alcyoneum, *Chaudoir*, Bull. Mosc. 1837, vii. p. 24¹.

Anchomenus transpunctatus, *Bates*, Proc. Zool. Soc. 1878, p. 593².

Hab. MEXICO¹, near the capital² (*Flohr*), San Antonio de Arriba (*Sallé*), Las Vigas (*Höge*).

As stated above under *A. cyanopis*, two species have been mingled together by French entomologists under *A. alcyoneus*. Unfortunately I redescribed *Chaudoir's* species, misled by an erroneous determination.

4. *Anchomenus anthracinus*.

Agonum anthracinum, *Dej.* Sp. Gén. Col. v. p. 739¹.

Hab. MEXICO¹, Cuernavaca, Peras, Guanajuato (*Sallé*), Las Vigas, Cordova (*Höge*).

5. *Anchomenus scutifer*. (Tab. IV. fig. 22.)

Anchomenus scutifer, *Bates*, Proc. Zool. Soc. 1878, p. 594¹.

"Elongato-ovatus, niger, nitidus, supra leviter cyaneo-tinctus; antennis articulo basali rufo; capite lævi, oculis vix prominulis; thorace magno, ovato, lævi; elytris thorace vix latioribus, acute et fortiter striatis, interstitiis planis, tertio 4-5-punctato.

"Long. $4\frac{3}{4}$ - $5\frac{1}{2}$ lin. ♂ ♀."

Hab. MEXICO, near the capital (*Flohr*)¹, Puebla, Toluca (*Sallé*), Las Vigas, Jalapa (*Höge*).

Closely allied to *A. anthracinus*, which is also often dark violet or black; but it differs in the much greater relative size of the thorax, the sides of which are more broadly explanated, especially near the hind angles.

6. *Anchomenus patinalis*.

A. anthracino brevior, magis opacus, niger, antennis articulo basali rufo, tibiis tarsisque obscure fulvis; thorace breviter ovato vel suborbiculari, lateribus æqualiter arcuatis, angulis anticis porrectis, posticis omnino rotundatis, margine laterali æqualiter explanato et versus basin reflexo, margine basali utrinque versus angulum explanato-reflexo, supra striguloso, opaco; elytris fortiter striatis, striis fundo punctulatis, interstitiis subconvexis, tertio punctis tribus in medio interstitio sitis.

Long. 4 lin.

Hab. MEXICO, Cuernavaca (*Sallé*); GUATEMALA, Panzos (*Champion*).

The strongly reflexed or upturned edges of the thorax from the basal peduncle (commencing abruptly) round the angle to the middle of the sides is a character which distinguishes this species from *A. anthracinus* and *A. scutifer*. A similar structure is perceived in *A. alcyoneus* and the nearly allied *A. placidus*, Say, of the middle States of North America.

7. *Anchomenus punctiformis*.

Feronia punctiformis, Say, Trans. Am. Phil. Soc. ii. 1823, p. 58¹.

Agonum orbicollis, id. ibid. iv. 1834, p. 423².

Agonum rufipes, Dej. Sp. Gén. Col. iii. p. 173³.

Agonum foveicolle, Chaudoir, Bull. Mosc. 1843, iv. p. 764⁴.

Hab. NORTH AMERICA^{1 3 4}.—MEXICO, Alvares Mountains (*Dr. Palmer*)², Guanajuato (*Dugès*, coll. *Sallé*), Chiapas (*Sallé*).

I fail to detect any difference of the slightest importance between Mexican specimens and others from Texas and Missouri.

8. *Anchomenus suturalis*.

Agonum suturale, Say, Trans. Am. Phil. Soc. iv. 1834, p. 422¹.

Hab. MEXICO¹ (*Sallé*).

9. *Anchomenus obsoletus*.

Feronia obsoleta, Say, Trans. Am. Phil. Soc. 1823, ii. p. 57¹.

Platynus obsoletus, Leconte, Bull. Brooklyn Ent. Soc. ii. 1879, p. 57.

Agonum luctuosum, Dejean, Sp. Gén. Col. iii. p. 172 (1828)².

Agonum placidum, Leconte, Ann. Lyc. N. York, iv. 227 (nec Say).

Anchomenus strigicollis, Mannerheim, Bull. Mosc. 1852, ii. p. 294³.

Hab. NORTH AMERICA^{1 2 3}.—MEXICO (*Sallé*); GUATEMALA, Tactic (*Champion*).

Except in being of rather smaller size, there is no apparent difference between specimens of this species from Washington Territory and others from Central America.

10. *Anchomenus cavatus*.

Gracilis, piceo-niger, nitidus, antennis piceo-rufis; capite ovato, postice gradatim angustato, palpis apice flavescens; thorace angusto, quadrato, lateribus antice paullo rotundato-dilatatis, marginibus sat late

explanatis et ab angulis anticis usque ad pedunculum reflexis, rufescentibus, basi utrinque valde concava, angulis anticis omnino rotundatis, posticis distinctis sed obtusis, lateribus paullo ante angulum sinuatis; elytris oblongis, humeris rotundatis, apice fortissime sinuatis, ad suturam productis, subpunctulato-striatis, interstitiis planis, tertio foveis magnis tribus secunda et tertia totum interstitium occupantibus; tarsis gracilibus, articulo penultimo triangulari, simplici.

Long. $3\frac{1}{4}$ lin.

Hab. MEXICO, Juquila (*Sallé*).

In the strongly sinuated apex and the large foveæ of the disk of the elytra this species resembles the *Sericoda* section; but the explanated lateral margins of the thorax and the elongated palpi are quite foreign to that section, pointing rather towards *Colpodes*.

11. *Anchomenus decempunctatus*. (Tab. IV. fig. 23.)

Dromius decempunctatus, Reiche, Rev. Zool. 1842, p. 310¹.

Sericoda decempunctata, Motschulsky, Bull. Mosc. 1864, iii. p. 233.

Hab. MEXICO, Jacale (*Sallé*), Jalapa (*Höge*); GUATEMALA, Volcan de Agua, Ostuncalco, Totonicapam (*Champion*).—SOUTH AMERICA, Colombia¹.

I have not seen Colombian examples of this species. Mexican specimens were named *Sericoda corrosa* (MS.) by Chaudoir in the *Sallé* collection. They differ slightly from Guatemalan representatives in the less sharply-marked strigose sculpture of the head and thorax. According to Reiche's description, the sculpture is well marked. The species is closely allied to *Sericoda bembidioides*, Kirby, from North-western America and Canada. In all structural characters *Sericoda* agrees perfectly with *Anchomenus*.

12. *Anchomenus dominicensis*.

Oblongus, castaneo-rufus, capite thoracisque disco plus minusve fuscis, elytris æneo tinctis, iridescentibus, antennis, palpis, thoracis lateribus pedibusque fulvo-rufis; palpis subelongatis, articulo terminali quam præcedens paullo longiore; oculis magnis, prominentibus; thorace transverso, postice paullo magis quam antice angustato, lateribus fortiter arcuatis, angulis anticis rotundatis, posticis distinctis sed obtusis, margine laterali sublate reflexo-explanato, basali fere recto, foveis basalibus magnis subpunctulatis; elytris apice oblique parum sinuatis, ad suturam conjunctim rotundatis, fortiter striatis, interstitiis subconvexis, tertio tripunctato puncto primo in striam tertiam impresso; tarsis articulo quarto simplici, triangulari.

Long. 3– $3\frac{3}{4}$ lin. ♂ ♀.

Hab. MEXICO, Cordova (*Sallé*), Jalapa, Las Vigas, Oaxaca (*Höge*); GUATEMALA, Zapote, Capetillo, near the city, San Gerónimo, Cerro Zunil, Volcan de Atitlan (*Champion*); NICARAGUA, Chontales (*Belt*); COSTA RICA; PANAMA, Bugaba (*Champion*).

The prominent eyes give this species an appearance different from that of the rest of the genus; and the pale dilated margins of the thorax, as well as the iridescent metallic colour of the elytra, give it the aspect of a *Colpodes*. The simple penultimate joint in all the tarsi, however, removes it from *Colpodes*. The ligular structure and the

mentum are the same as in *Anchomenus*. The species bears the name of *Platynus dominicensis*, Mann., in the Sallé collection; but I cannot find that Mannerheim ever published a description of it under that name.

ELLIPTOLEUS.

Gen. *Anchomeno* affine; differt metathoracis episternis brevibus, transversis, epimerisque brevissimis anguste parallelogrammicis. Caput parvum; oculi magni, vix prominentes; foveæ frontales parum impressæ. Palpi subgraciles, articulis terminalibus versus apicem attenuatis. Mentum dente mediano simplici. Thorax ovatus, postice omnino rotundatus; foveis basalibus obsoletis. Elytra ovata, versus humeros angustata, ante apicem vix sinuata, margine basali utrinque valde arcuato, plica basali versus scutellum obsoleta. Metathoracis episterna brevia, subquadrata; epimera brevia, parallelogrammica. Pedes graciles; tarsi subtus parce et longe setosi, articulo penultimo simplici; antici ♂ articulis 1^o-3^m angustis, 2^o et 3^o ovatis.

In general form the species of this genus nearest resemble *Anchomenus variolatus*; but the elytra are relatively shorter than in this or any other species of *Anchomenus*, and the facies is peculiar. The setiferous puncture, usually situated close to the hind angle of the thorax, is, in this genus, placed on the lateral margins, some distance from the angle.

1. *Elliptoleus vixstriatus*.

Anchomenus vixstriatus, Bates, Proc. Zool. Soc. 1878, p. 594¹.

“Parvus, gracilis, fusco-æneus politissimus; palpis, antennis basi pedibusque fulvo-testaceis; thorace subcordato-ovato, angulis rotundatis; elytris ovatis, striis vix impressis, interstitiis paullulum convexis 2^o bi- vel tripunctato; metasterni episternis brevibus, latis, epimeris transversis.

“Long. 2 $\frac{3}{4}$ lin. ♂ ♀.”

Hab. MEXICO, near the capital (*Flohr*)¹, Las Vigas, Jalapa (*Höge*).

2. *Elliptoleus flavipes*. (Tab. IV. fig. 21.)

Agonum flavipes, Dej. Sp. Gén. Col. v. p. 737¹.

Longior et angustior, cupreo-fuscus nitidus, thoracis et elytrorum marginibus, labro, palpis, antennis et pedibus melleo-flavis; thorace ovato, postice minus angustato, marginibus (præcipue versus basin) multo magis reflexis; elytris obsolete (versus apicem fortius) subpunctulato-striatis.

Long. 3 lin. ♂ ♀.

Hab. MEXICO¹, Las Vigas (*Höge*).

Dejean's phrase “Côtés du corselet assez fortement rebordés,” fits better the present than the preceding species. It agrees better also in the striæ being more distinct; in *E. vixstriatus* they are scarcely visible. In colours the two species are alike.

3. *Elliptoleus curtulus*.

Latior, thorace brevior et latiore, subrotundato, postice minime angustato, margine laterali et basali usque ad pedunculum explanato-reflexo; cupreo-fuscus, nitidus, marginibus angustissime rufescentibus; elytris obsolete striatis, striis versus apicem haud profundioribus; antennis, palpis et pedibus fulvo-rufis.

Long. 3 $\frac{1}{4}$ -3 $\frac{1}{2}$ lin.

Hab. MEXICO, Cumbre de Pelado (*Sallé*).

4. *Elliptoleus crepericornis*.

Minor, angustior, a cæteris differt antennis nigro-fuscis articulis 3 basalibus tantum pallidis; thorace fere ut in *E. curtulo* quadrato-ovato nec postice fortiter angustato (ut in *E. vixstriato*) nec valde elongato-ovato (ut in *E. flavipede*); palpis pedibusque marginibusque thoracis et elytrorum testaceo-fulvis; elytris oblongo-ovatis, angustioribus, subparallelis, omnino obsolete striatis.

Long. $2\frac{3}{4}$ -3 lin.

Hab. MEXICO, Parada Capulalpam (*Sallé*).

5. *Elliptoleus acutesculptus*.

Paullo major, niger vix ænescens, antennis, palpis pedibusque piceo-rufis; thorace breviter ovato, postice haud angustato, marginibus reflexis; elytris subtiliter sed acute et integre striatis, interstitiis planissimis, punctulis quatuor, tribus anterioribus juxta striam tertiam, quarto versus apicem in stria secunda sitis.

Long. 4 lin.

Hab. MEXICO, near the city (*Flohr in coll. Bates*).

GLYPTOLENUS.

Glyptolenus, Bates, Proc. Zool. Soc. 1878, p. 595.

“Corpus gracile. Caput angustum, ovatum. Mentum sinu dente magno elongato. Palpi nudi, articulis terminalibus cylindricis. Thorax angustus, ante medium angulatim dilatatus, dorso grosse transversim rugatus. Elytra ampla, convexa, apice haud sinuata, supra fortiter sulcata. Prosternum apice marginatum, prominulum. Metasterni episterna elongata. Pedes graciles; tibiæ et tarsi fortiter sulcata; tarsorum articuli 1^{us}-4^m latitudine æquales plantis pubescentibus, 4^{us} emarginatus.”

This genus was founded on a species remarkable for the strongly-sculptured transverse rugæ of the thorax. Since its publication I have found that *Colpodes janthinus* (Dej.), *C. ater* (Chaud.), and *C. nigrita* (Chaud.), in which the rugæ are much less pronounced, or the thorax entirely smooth, belong to the same group. All are distinguished by the linear but somewhat flattened and above deeply-grooved tarsi, the grooved sides and outer edges of the tibiæ, the convex, apically rounded elytra, and the narrow lateral margins of the thorax. It is difficult to say whether these characters are sufficient to distinguish *Glyptolenus* as a genus from so polymorphic a group as *Colpodes*; but I prefer to maintain it for the present.

1. *Glyptolenus rugicollis*. (Tab. V. fig. 1.)

Glyptolenus rugicollis, Bates, Proc. Zool. Soc. 1878, p. 595¹.

“Niger, subnitidus; thorace quam caput vix latiore, oblongo, postice sinuatim paulo angustato, angulis posticis subrectis, supra grosse rugato; elytris latis, convexis, apice rotundatis, supra grosse profunde striatis [striis crenatis], interstitiis convexis; antennis, palpis, tibiis et tarsis piceo-fulvis. ♀.

“Long. $3\frac{1}{4}$ lin.”

Hab. GUATEMALA, El Zumbador. Las Mercedes (*Champion*); NICARAGUA, Chontales (*Belt*¹).

The third elytral interstice has the normal three punctures; but, being slightly impressed, they are difficult to be distinguished from the transverse impressions or

undulations which exist on the surface of the insect. The frontal fovea are very deeply excavated, and the crown of the head (behind the eyes) convex. The thorax is long and narrow, with narrow lateral veins, anterior angles distinct but not at all projecting, and posterior angles rectangular or in some examples acute. The sides of the thorax, at the part where it is rather broader than in the rest of the length, *i. e.* a very little before the middle, is more or less angulated. The transverse rugæ are strongly sculptured and very different from the striæ noticeable in many species of *Anchomenus*, and the basal fovea on each side is very long and narrow.

2. *Glyptolenus ater*.

Colpodes ater, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 358¹.

Hab. MEXICO, Toxpam (*Sallé*¹), Cordova (*Sallé*); GUATEMALA, Cerro Zunil (*Champion*); PANAMA¹, Volcan de Chiriqui (*Champion*).

Stated by Chaudoir, on M. Sallé's authority, to be found under the bark of trees.

3. *Glyptolenus transformatus*.

Præcedentibus similis, paullo angustior et thorace aliter formato; piceo-niger, subnitidus, antennis, palpis et pedibus fulvis; thorace subcordato, convexo, antice sat fortiter rotundato (angulis rotundatis) postice (post medium) modice angustato, margine laterali angusto, versus angulos posticos subobtusos solum reflexo, fovea basali lata et brevi, rugulosa; elytris angustis, convexis, crenato-striatis, interstitiis subplanis, tertio punctis tribus conspicuis.

Long. 3 lin.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

One example only.

CYRTOLAUS.

Corpus oblongum, convexum. Mandibulæ longissimæ, fere rectæ. Ligula antice angustata, setis sat approximatis. Maxillæ angustæ, subrectæ, intus spinosæ et sparsim setosæ. Palpi (præcipue maxillarium articulo penultimo) valde elongati. Tarsi supra strigosi, articulo quarto anguste bilobato; plantæ dense pubescentes. Metathoracis episterna lata, brevissima.

The peculiar form of the ligula, narrowed near the apex almost as in *Leptotrachelus*, induces me to separate this genus from *Colpodes*. The typical species have besides a very distinct facies, due to their convex and strongly sculptured elytra, armed near the sutural angle with a distinct spine; but the ligular structure brings within the same genus a species in which the elytra are of normal striation. The sculpture of the surface of the tarsal joints, in which there are traces of numerous grooves or scratches, is also a good generic character. But this irregular grooving, in the less typical species just alluded to, is reduced on most of the joints to two short grooves placed close together in the middle.

1. *Cyrtolaus furculifer*.

Elongato-oblongus, piceo-niger, subnitidus, palpis, antennis pedibusque plus minusve fulvo-piceis; capite cum mandibulis valde elongato, pone oculos transversim sulcato, foveis frontalibus magnis profundis; thorace

elongato, vix brevior quam latiore, lateribus fere æqualiter arcuatis, explanato-reflexis, angulis posticis elevatis dentiformibus, fovea basali utrinque usque fere ad apicem curvatim extensa; elytris valde convexis humeris fortiter rotundatis, medio fere parallelis, angulo apicali suturali utrinque spina elongata armato, dorso grosse punctato-sulcato, interstitiis costatis.

Long. $7\frac{1}{2}$ lin. ♂ ♀.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

2. *Cyrtolaus spinicauda*. (Tab. V. fig. 2.)

Brevius oblongo-ovatus, elytris ovatis subgibbosis, spina utrinque apicali ab angulo suturali paullo remota. Niger nitidus, palpis antennisque fulvis, pedibus rufo-piceis; capite fere ut in *C. furculifero*; thorace latiore, ovato, antice magis quam postice angustato, lateribus valde arcuatis, margine fortiter (postice multo magis) explanato-reflexo, angulis posticis elevatis rotundatis nullo modo dentatis; elytris quam in *C. furculifero* brevioribus et latioribus, ante apicem subgibbosis vel abrupte declivibus, grosse punctato-sulcatis, interstitiis costiformibus sed minus elevatis et latioribus.

Long. 7 lin. ♂ ♀.

Hab. GUATEMALA, San Gerónimo, Purula (*Champion*).

The female is rather less ovate and gibbous than the male, and in this respect approaches *C. furculifer*; but the species may readily be distinguished in both sexes by the form of the hind angles of the thorax, which in *C. spinicauda* are completely rounded off, and in *C. furculifer* form an abrupt, dentiform, salient angle.

3. *Cyrtolaus lobipennis*.

Oblongus, minus convexus, niger, nitidus, palpis antennisque basi piceo-rufis, femoribus castaneo-rufis; labro angulatim emarginato; maxillis angustissimis, apice tenuiter hamatis; oculis haud prominentibus; thorace elongato, prope apicem sat angustato, postice usque ad angulos lateribus parallelis, angulis anticis nullo modo prominentibus, posticis rectis (sed apice obtusis) elevatis, foveis basalibus profundis linearibus, antice versus apicem in linea minus profunda curvata continuatis; elytris versus apicem profundissime sinuatis, apice ipso sublobiformi, humeris rotundatis, dorso valde striatis, striis punctatis, interstitiis modice convexis, tertio punctis setiferis duobus altero post medium altero prope apicem; tarsis latis, supra subdepressis, articulis plerumque supra bisulcatis, quarti lobis minus rotundatis.

Long. 7 lin.

Hab. GUATEMALA, San Gerónimo (*Champion*).

One example only, apparently a female. The deep and rather abrupt subapical sinuation of the elytra is a remarkable feature of this species.

COLPODES.

Colpodes, Macleay, *Annulosa Javanica*, p. 17 (1825); Chaudoir, *Ann. Soc. Ent. Fr.* 1859, p. 289; id. *ibid.* 1878, p. 278.

Loxocrepis, Eschscholtz, *Zool. Atlas*, ii. p. 6 (1829).

Dyscolus, Dejean, *Sp. Gén. Col.* v. p. 437 (1831).

Stenocnemus, Mannerheim, *Bull. Mosc.* 1837, ii. p. 29.

Ophryodactylus, *Paranomus*, *Scaphiodactylus*, Chaud. *olim.*

Pleurosoma, Guérin, *Mag. Zool.* 1844, pl. 136 (sec. Chaudoir).

Metallosomus, *Omiastus*, *Abropus* (sed non Guérin), Motschulsky, *Bull. Mosc.* 1864

In his second monograph of this genus, published in 1878, Chaudoir enumerated 223 species as belonging to it; the number existing in collections, however, is far greater than this large total. They are distributed over the warmer regions of the earth, chiefly within the tropical zone, though they are very much less numerous in the wooded plains near the equator than in the mountains or in latitudes further removed north or south, Mexico, Central America, and the Andes of Colombia and Ecuador being especially rich in species. In Southern and Eastern Asia and the neighbouring islands the genus is also well represented; and many species occur in New Zealand, Madagascar, and the Mascarene Islands, although, singularly enough, none are yet known from Australia or Africa. One species only is at present recorded from temperate North America.

Colpodes is distinguished from *Anchomenus* and *Platynus* chiefly by the form of the penultimate joint of the tarsi, which is more or less bilobed, instead of triangular or slightly emarginated. This peculiarity, however, is very far from being uniform; strongly marked in the more typical species in all the legs, the lobes being rounded and the outer longer than the inner, it degenerates in others into a simple emargination of the joint, the outer angle retaining its relatively greater length; but the anterior tarsi are the least affected by the changes of form, being in all the species more or less distinctly and equally bilobed. The soft hairy clothing of the soles of the tarsi, which Chaudoir mentions as also a generic character, is still less constant: in the more typical species the hairs are numerous and soft; but in many others the tarsi present the same scanty rows of bristles as in *Platynus* and *Anchomenus*.

A *Colpodes* is in most cases recognizable as an Anchomenid of long and slender form, with legs, antennæ, and palpi more elongated than in the allied genera. The colours, though various, are seldom quite like those prevalent in *Anchomenus*, even when metallic.

The species are nearly all arboreal in their mode of life; and this will reasonably account for their tarsal structure, if, as may be supposed, they are *Anchomeni* and *Platyni* modified to suit climbing habits.

§ 1. *Episterna metathoracica brevia, postice vix angustata.*

1. *Colpodes prostomis.*

Colpodes prostomis, Bates, Proc. Zool. Soc. 1878, p. 598¹.

“Elongato-oblongus, niger, nitidus, elytris violaceo-tinctis, palpis gracilibus antennisque rufo-piceis; capite mox pone oculos angustato, collo cylindrico, supra depresso; mandibulis valde elongatis; thorace elongato-quadrato, supra lævissimo, antice prope angulos angustato, postice longius et minus, vix sinuatim angustato, angulis posticis subrectis apice obtusis, margine laterali subæqualiter explanato-reflexo; elytris oblongis, valde convexis, apice sinuatis, fortiter (prope apicem profundius) striatis, interstitiis paullo convexis, 3^o tripunctato; metasterni episternis brevibus.

“Tarsi articulo 4^o bilobo, lobis valde inæqualibus.

“Long. 6½–7 lin. ♂ ♀.”

Hab. COSTA RICA, Volcan de Irazu, 6000–7000 feet (*Rogers*¹).—PANAMA, Volcan de Chiriqui (*Champion*).

An aberrant species, much resembling *Cyrtolaus lobipennis*, but presenting the generic characters of *Colpodes*. The mandibles are similar in their length and straightness to *Cyrtolaus*, but the ligula is of the normal Anchomenid form, and the four hind tarsi are slender, with the usual lateral groove (situated nearer the dorsal surface than usual) on each side of the joints, the 4th joint having the usual long narrow lobes (the exterior the longer) of *Colpodes*. The metathoracic episterna, though short, have not the broad form characteristic of the first section, but are considerably narrowed behind.

2. *Colpodes stricticollis*. (Tab. V. fig. 3.)

Colpodes stricticollis, Bates, Proc. Zool. Soc. 1878, p. 595.

“Elongatus, niger, nitidus; palpis, antennarum articulis 4^o–11^m tarsisque piceo-rufis; thorace fere orbiculari, basi fortiter constricto, marginibus lateralibus rotundato-explanatis, supra lævi, polito; elytris convexis, marginibus lateralibus explanatis lævibus, apice vix sinuatis, supra valde convexis, sulcato-striatis.

“Tarsi articulo 4^o latiusculo, emarginato, subtus sublonge setoso, articulis 1^o–3^m quatuor posteriorum supra bisulcatis.

“Long. 6 lin.”

Hab. NICARAGUA, Chontales (*Belt, Janson*).

This is another aberrant species, unlike any other member of the genus both in general form and in the combination of structural characters. The metathoracic episterna have nearly the same form as in *C. prostomis*; and the tarsi are similarly grooved, but the fourth joint is simply emarginate, with moderately produced angles.

3. *Colpodes marginicollis*.

Colpodes marginicollis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 312; id. *ibid.* 1878, p. 295¹.

Hab. MEXICO¹, Jacale (*Sallé*).

4. *Colpodes pterostichoides*. (Tab. V. fig. 4.)

Oblongus, depressus, cupreo-piceus, antennis, palpis pedibusque rufo-piceis; oculis parvis, collo crasso; thorace quadrato, ante medium modice angustato, angulis anticis productis, post medium fortiter sinuato sed parum angustato, angulis posticis acutis productis, supra lævi; elytris breviter oblongis, humeris subrectis, apice sat fortiter sinuatis, subtiliter sed acute striatis, interstitiis planis tertio 3-punctato; metathoracis episternis brevibus; tarsis posticis utrinque sulcatis, articulo 4^o lato profunde emarginato; plantis omnibus dense pubescentibus, articulo unguiculari nudo.

Long. 5½ lin. ♂ ♀.

Hab. MEXICO, Las Vigas, Tehuacan, Oaxaca (*Höge*).

Unlike any other *Colpodes* known to me, and in general form similar to the *Pterostichi* allied to *P. multipunctatus*. The elytra are more metallic than the rest of the surface, dark purplish coppery, with a slight opalescent lustre.

5. *Colpodes robustus*.

Colpodes robustus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 296¹.

Hab. MEXICO (*Putzeys*¹).

This species was not met with either by M. Sallé or Herr Höge.

6. *Colpodes lugens*.

Feronia lugens, Dejean, Sp. Gén. Col. v. p. 771¹.

Colpodes lugens, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 297².

Dyscolus anchomenoïdes, id. ibid. 1845, p. 440.

Colpodes anchomenoïdes, id. ibid. 1859, p. 310.

Var. *Colpodes brunnipennis*, id. ibid. 1859, p. 312; 1878, p. 297³.

Hab. MEXICO^{1 2 3}, near the capital (*Flohr*).

This species is confounded with the following (*C. mæstus*) in the Sallé collection; and a similar mistake was made by no less an authority than the late M. Putzeys, to whom I sent a set of *Colpodæ* to name. There is no real difficulty, however, in distinguishing the two, *C. lugens* having a much broader head, and resembling a *Platysma*, whilst *C. mæstus* has the oval head and general form of *Anchomenus* ♂ *Agonum*.

7. *Colpodes mæstus*.

Feronia mæsta, Dej. Sp. Gén. Col. v. p. 770¹.

Feronia funesta, Chaudoir, Bull. Mosc. 1837, vii. p. 31².

Colpodes tristis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 314.

Colpodes mæstus, id. ibid. 1878, p. 297³.

Var. *Feronia funesta*, Chaudoir, Bull. Mosc. 1837, vii. p. 31.

Var. *Feronia opaca*, id. ibid. p. 32.

Hab. MEXICO^{1 2 3}, Puebla, Toluca, San Antonio de Arriba (*Sallé*), Cuernavaca (*Boucard*³), Las Vigas (*Höge*), Mexico city (*Flohr*).

8. *Colpodes transfuga*.

Colpodes transfuga, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 297¹.

Hab. MEXICO¹, Parada (*Sallé*).

A typical specimen, with label in M. de Chaudoir's handwriting, is in the Sallé collection.

9. *Colpodes guatemalensis*.

Colpodes guatemalensis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 298¹.

Hab. GUATEMALA¹, Quezaltenango (*Champion*).

I refer with some hesitation an example taken by Mr. Champion to this species, with the description of which it agrees except in colour, being deep black with a silky gloss, instead of "brun foncé presque noir."

10. *Colpodes nugax*.

Anchomenus nugax, Bates, Proc. Zool. Soc. 1878 (October), p. 594.

Colpodes neglectus, Chaudoir, Ann. Soc. Ent. Fr. 1878 (November), p. 298.

“Castaneo-fuscus vel æneo-fuscus, nitidus; palpis, antennis et pedibus piceis, raro fulvo-testaceis; thorace quadrato, paulo ante medium subangulatim dilatato, deinde postice paulo angustato, angulis posticis rectis, margine laterali anguste explanato-reflexo vix pallidiore; elytris minus rotundato-ovatis, apice vix sinuatim oblique truncatis, supra acute striatis, interstitiis planis, 3^o tripunctato, margine deflexo interdum testaceo.

“Long. 3¼ lin. ♂ ♀.”

Hab. MEXICO, near the capital (*Flohr, Sallé*), Durasnil (*Sallé*), Jalapa (*Höge*).

M. René Oberthür kindly compared specimens of *A. nugax* with M. de Chaudoir's types of *C. neglectus*, with which he found them to agree. The species is labelled *C. neglectus* also in the Sallé collection. It is a small species of the *mæstus* group, resembling much an *Anchomenus*, from which genus it barely differs in tarsal structure; the penultimate joints, however, are a little enlarged and emarginated. The species had been previously distributed (together with the following) by MM. Sallé and Boucard as *Anchomenus misellus* (Chaud. MS.).

11. *Colpodes concisus*.

Anchomenus concisus, Bates, Proc. Zool. Soc. 1878 (October 1st), p. 594.

Colpodes angulosus, Chaudoir, Ann. Soc. Ent. Fr. 1878 (November 27th), p. 299.

“Fusco-æneus, modice nitidus; palpis, antennis, pedibus margineque deflexo elytrorum fulvo-testaceis; capite collo transversim depresso; thorace subcordato, postice sinuatim angustato, angulis posticis fere rectis, margine laterali explanato-reflexo, fulvo; elytris ovatis, apice oblique sinuatis, supra acute striatis, interstitiis planis, tertio tripunctato.

“Long. 3–3¼ lin.”

Hab. MEXICO, near the capital (*Flohr, Sallé*), Guanajuato (*Dugès, coll. Sallé*), Puebla (*Sallé*), Las Vigas (*Höge*).

Similar to *C. nugax*, differing chiefly in the narrower thorax, the hind angles of which are much produced.

12. *Colpodes suffectus*.

Anchomenus suffectus, Bates, Proc. Zool. Soc. 1878, p. 594¹.

“*C. conciso* simillimus: differt elytris amplioribus, thorace angustiore marginibus lateralibus anguste reflexo-marginatis, postice magis sinuatis, antice angulatim rotundatis. Castaneo-fuscus; palpis, antennis pedibusque fulvo-testaceis, margine angusto thoracis epipleuris elytrorum obscure testaceis; elytris acute striatis, apice oblique fortius sinuatis, interstitio 3^o tripunctato.

“Long. 3½ lin.”

Hab. MEXICO (*Boucard*¹), Durasnil (*Sallé*), Mexico city (*Flohr*).

13. *Colpodes simplicior*.

Anchomenus simplicior, Bates, Proc. Zool. Soc. 1878, p. 595¹.

“*C. nugaci* proxime affinis: differt tantum thorace paullulum angustiore, lateribus antice æqualiter rotundatis

nullomodo angulatis, postice vix conspicue sinuatim modice angustato, angulis fere rectis, margine laterali angustissime explanato haud pallido: piceo-niger, vix æneo tinctus, antennis palpis et pedibus piceo-rufis; elytris ovatis, subtiliter striatis etc. ut in præcedentibus.

Long. 3 lin.

Hab. MEXICO, near the capital (*Flohr*¹).

14. *Colpodes gratus*. (Tab. V. fig. 8.)

Colpodes gratus, Bates, Proc. Zool. Soc. 1878, p. 596¹.

“Elongato-ovatus, convexior, subæneo-niger; palpis, antennis, tibiis et tarsis piceo-rufis; palpis articulo ultimo sublineari; thorace ovato, lateribus æqualiter rotundatis, paullo ante basin sinuatim citius angustatis, angulis posticis subobtusis, margine æqualiter anguste explanato; elytris apice leviter sinuatis, interstitiis paullulum convexis, 3^o puncto unico solum conspicuo.

“Tarsi articulo 4^o subtus longe setoso, quatuor anteriorum breviter bilobo, lobis inæqualibus.

“Long. 4 $\frac{3}{4}$ –5 lin. ♂ ♀.”

Hab. COSTA RICA, Volcan de Irazu, 6000–7000 feet (*Rogers*¹).

M. René Oberthür, to whom I sent examples for comparison with M. de Chaudoir's types, pronounced this to be unknown to the collection, but allied to *C. morosus*.

15. *Colpodes duplex*.

Colpodes duplex, Bates, Proc. Zool. Soc. 1878, p. 596¹.

“Elongato-ovatus, subæneo-niger, elytris purpureo-fuscis; palpis, antennis (art. 5^o–11^m dilutioribus) pedibusque rufo-piceis; thorace quadrato, ante medium rotundato-dilatato, deinde paullo vix sinuatim angustato, angulis posticis subrectis; elytris apice oblique sinuatis, striatis, interstitiis planis (versus apicem convexis), 3^o tripunctato, puncto anteriore interdum deficiente; elytris raro æneo-fuscis.

“Tarsi, articulo 4^o subtus sparsim longe setoso, quatuor anteriorum brevissimo bilobo.

“Long. 3 $\frac{1}{2}$ lin. ♂ ♀.”

Hab. COSTA RICA, Volcan de Irazu, 6000–7000 feet (*Rogers*¹).

Allied to *C. nugax* and allies, the form of the thorax resembling nearest that of *C. simplicior*; but it is a larger insect than any member of that group, and is distinguished further by the strong purplish-copper tinge on the elytra.

16. *Colpodes durangensis*.

C. maesto affinis, sed multo major, thoracis angulis posticis rotundatis etc. Elongato-ovatus, parum convexus, niger, subcyaneo tinctus, elytris sericeo-subopacis, palpis antennisque subrufo-piceis; capite ovato, foveis frontalibus vix impressis, oculis parum prominentibus; palpis apice truncatis; thorace ovato, postice paulo magis quam antice angustato, angulis posticis rotundatis, margine laterali reflexo; elytris apice conjunctim subacuminatim rotundatis vix sinuatis, margine basali utrinque valde arcuato, dorso acute striato, interstitiis planis tertio conspicue tripunctato; metathoracis episternis brevibus fere quadratis; tarsis subtus setosis, posticis quatuor utrinque sulcatis, articulo 4^o emarginato (anticis breviter bilobatis), 5^o ciliato.

Long. 6 $\frac{1}{2}$ lin.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

Closely allied to *C. semiopacus*, but differing in the much less polished thorax (which

is rugulose and towards the base and angles subopaque), the truncated palpi, and the scarce perceptibly sinuated elytra. Chaudoir places *C. semiopacus* in his second section ("episterna postica latitudine parum longiora"); but the episterna are very little longer than in any of the *mæstus* group, and I suspect this is a character which varies to some extent in one and the same species.

17. *Colpodes procephalus*. (Tab. V. fig. 6.)

Colpodes procephalus, Bates, Proc. Zool. Soc. 1878, p. 597.

"Elongatus, vix convexus, niger; elytris purpurascensibus [vel cyaneis]; capite elongato, post oculos gradatim angustato, collo supra haud transversim depresso, oculis haud prominulis; palpis et antennis piceis; thorace valde elongato, oblongo-ovato, postice paullo leviter angustato, angulis posticis obtusis vel rotundatis, supra subtiliter transversim striato; elytris ellipticis, apice fortiter sinuatis, striatis, interstitio 3° tripunctato; metasterni episternis brevibus quadratis.

"Tarsi articulo 4° latiusculo, profunde emarginato."

Long. 5-7 lin.

Hab. GUATEMALA, near the city (*Salvin*), Capetillo, Volcan de Agua, Totonicapam (*Champion*).

Var. *honduræ*, thorace postice fortius sed gradatim angustato, elongato-cordato, elytris nigris leviter cupreo tinctis.

Hab. HONDURAS, river Sarstoon (*Blancaneaux*).

Closely allied to *C. semiopacus*; head similarly prolonged and very gradually narrowed behind the eyes, claw-joint of the tarsi ciliated, &c. The elytra, however, are more sharply and strongly striated, and of a shining purple-coppery tinge. The palpi are obtusely acuminate at the apex, and the hinder tarsi very faintly grooved on the sides.

The Honduras variety, in which the thorax is rather longer and more strongly narrowed behind, is connected with the type form by intermediate gradations from Capetillo.

The metathoracic episterna are much narrower and rather longer than in *C. mæstus*, but do not differ much in form from those of *C. feronioides* in the same section.

18. *Colpodes semiopacus*.

Colpodes semiopacus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 322¹.

Hab. MEXICO, Oaxaca (*Sallé*¹), Parada (*coll. Sallé*).

19. *Colpodes biovatus*.

Colpodes biovatus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 322.

Hab. MEXICO, Yolotepec (*Sallé*), Oaxaca (*Höge*).

A specimen in the Sallé collection is labelled "type," and bears the name in M. de Chaudoir's handwriting. The species is very closely allied to the three preceding, and is (erroneously, as I think) referred by its author to his second section,

the metathoracic episterna being short and rather broad. The basal margin of the elytra is still more strongly curved than in the allied species, with the humeral angles correspondingly more acute. The claw-joint of the tarsi is not ciliated.

20. *Colpodes championi*. (Tab. V. fig. 10.)

C. procephalo et *semiopaco* affinis, sed multo major, elytris convexioribus, æneis, nitidis. Valde elongatus, politus, niger, elytris subviridi-æneis; palpis elongatis, apice obtuse acuminatis, piceo-rufis; capite longe exserto, post oculos recte angustato, collo constricto; thorace oblongo-ovato, postice paululum magis quam antice angustato, angulis posticis omnino rotundatis, margine reflexo; elytris elongato-ovatis, convexis, margine basali subrecto, angulo humerali obtuso, apice sat sinuatis, dorso polito acute striato, interstitiis planis, 3° tripunctato; tarsis subtus dense breviter pubescentibus, posterioribus utrinque sulcatis, articulo unguiculari ciliato; episternis posticis brevibus minus angustatis.

Long. $6\frac{1}{2}$ –8 lin.

Hab. GUATEMALA, Cerro Zunil, Las Mercedes (*Champion*).

21. *Colpodes eueides*.

C. championi similis, sed gracilior, elongato-ovatus, niger nitidus, elytris convexis cuprescentibus valde striatis, interstitiis subconvexis tertio tripunctato, margine basali fere recto, humeris obtusis, apice sat sinuatis; palpis antennisque piceo-rufis, illis gracilibus apice obtuse acuminatis; capite postice recte angustato; thorace ovato, postice paulo magis quam antice angustato, angulis anticis nullomodo productis, posticis subrotundatis; tarsis subtus dense breviter pubescentibus, posterioribus utrinque sulcatis, articulo 4° profunde emarginato, 5° ciliato; episternis posticis brevibus sat angustis.

Long. $6\frac{3}{4}$ lin.

Hab. GUATEMALA, Aceituno, Calderas (*Champion*).

Resembles *C. severus*, Chaud., with the type specimen of which I have compared it, and from which it differs in the non-produced anterior angles of the thorax and the distinctly shorter metathoracic episterna.

22. *Colpodes severus*.

Colpodes severus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 321¹.

Hab. MEXICO, Chiapas (*Putzeys*¹).

23. *Colpodes teter*.

Colpodes teter, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 321¹.

Hab. MEXICO, Chiapas (*Putzeys*¹, *Sallé*).

24. *Colpodes pristonychoides*.

Colpodes pristonychoides, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 321¹.

Hab. MEXICO¹, Yolotepec (*Sallé*).

The Sallé collection contains the type specimen of this distinct species.

25. *Colpodes castanipes*.

Gracilis, castaneo-fuscus vel piceo-niger minus nitidus, antennis palpis et pedibus fulvo-castaneis; capite post oculos gradatim angustato (oculis vix prominentibus), occipite transversim depresso; thorace quadrato-cordato postice sinuato-angustato, antice sat rotundato, angulis posticis rectis plus minusve productis et cum margine laterali elevatis; elytris elongatis, basi angustis margine recto, deinde gradatim usque ultra medium modice ampliatis, prope apicem parum sinuatis, dorso acute striato, interstitiis subtiliter alutaceis, planis, 3° tripunctato (puncto primo sæpe deficiente); tarsis subtus minus dense setosis, posterioribus utrinque sulcatis, articulo 3° triangulari, emarginato, angulis paulo productis, unguiculari nudo; episternis posticis brevibus postice haud angustatis.

Long. $5\frac{1}{2}$ lin.

Hab. GUATEMALA, Totonicapam (*Champion*).

The penultimate joint of the tarsi is barely sufficiently emarginate or lobed to bring the species within the definition of the genus *Colpodes*; in facies, too, it approaches some of the *Platyni*.

26. *Colpodes incultus*. (Tab. V. fig. 5.)

C. atrato similis, sed differt episternis posticis brevibus etc.: paullo major, niger nitidus; palpis antennisque (articulis basalibus exceptis) et tarsis (interdum autem tibiis) rufo-piceis; capite breviter ovali, post oculos tumidulo, collo constricto; thorace transverso, cordato-quadrato, postice sat sinuatim angustato, antice rotundato, angulis anticis obtusis (a collo sat distantibus), posticis productis subacutis, margine laterali vix reflexo, dorso striguloso; elytris elongato-ovatis, postice paullo ampliatis, margine basali utrinque fortiter arcuato, ante apicem sinuatis, dorso vix convexo, subtiliter punctulato-striatis, interstitiis planis, 3° tripunctato; tarsis subtus subdense setosis, posterioribus utrinque sulcatis, articulo 4° emarginato, angulo exteriori longiore, pedum anticorum bilobato; episternis posticis brevibus, postice parum angustatis.

Long. 5 lin.

Hab. GUATEMALA, near the city (*Salvin*), Totonicapam (*Champion*).

Very similar to *C. atratus* (Chaud.), but a little longer and distinguished by the sectional character of short metathoracic episterna. Similar also to *C. lugens*, but with much smaller head and narrower constricted neck, and differing also in the hind episterna being perceptibly a little longer.

27. *Colpodes evanescens*. (Tab. V. fig. 7.)

Elongatus, *Patrobo rufipedi* haud dissimilis, piceo-niger nitidus, partibus oris, antennis et pedibus fulvo-castaneis; capite latius ovato, post oculos prominentes citius angustato, collo sat constricto; thorace quam caput parum latiore, quadrato-cordato, postice subsinuatim angustato angulis fere rectis, antice modice rotundato angulis vix productis obtusis, margine laterali angusto versus basin altius reflexo; elytris elongato-ovatis, humeris nullis, apice parum sinuatis, margine basali brevissimo et valde arcuato, dorso obsolete subpunctulatum striatis, interstitio tertio conspicue tripunctato; tarsis subtus sparsim setosis, posterioribus haud conspicue sulcatis, articulo 4° breviter bilobo (posticorum lobis brevissimis), lobo exteriori paullo longiore; episternis posticis brevibus sed paullo angustatis.

Var. 1. Thoracis angulis posticis obtusioribus fere rotundatis, pedibusque fusco-castaneis.

Var. 2. Minor ($3\frac{1}{4}$ lin.), thorace rufescente, angulis valde obtusis.

Long. 4 lin.

Hab. GUATEMALA, Totonicapam (*Champion*).

In colours and in the elongated form similar to *C. castanipes*, but the head of totally different shape, and the elytra obsoletely striated.

The varieties occur in the same locality as the type form.

28. *Colpodes sphodroides*.

Colpodes sphodroides, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 309; id. *ibid.* 1878, p. 322¹.

Hab. MEXICO, Oaxaca¹ (*Höge*), Parada (*Sallé*), Jalapa (*Höge*).

29. *Colpodes forreri*. (Tab. V. fig. 9.)

C. sphodroidi et *biovato* affinis, sed longior et gracilior, elytris cyaneo-nigris depressis subopacis; capite ovato, oculis modice prominentibus, genis post oculos sat tumidis, collo constricto; palpis apice recte truncatis; thorace angusto, ovato, depresso, postice gradatim angustato angulis posticis omnino rotundatis; elytris elongato-ovatis post medium latioribus, versus basin sensim angustatis, margine basali arcuato, angulo humerali paullo producto, apice sinuatis, dorso tenuiter striatis, interstitiis planis 3° conspicue tripunctato; tarsis subtus subdense spinosis, posticis utrinque sulcatis, articulo 4° emarginato, lobis acutis æqualibus, 5° haud ciliato; episternis posticis quam in *C. sphodroide* paullo longioribus.

Long. 5½ lin.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

30. *Colpodes ebeninus*.

Colpodes ebeninus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 310.

Hab. MEXICO, Santecomapan (*Sallé*).

31. *Colpodes bispinis*.

Elongato-ovatus, dorso postice gradatim declivo et planato; niger nitidus, elytris cupreo-æneis; capite sat elongato, genis pone oculos sat dilatatis gradatim angustatis, collo subconstricto, foveis frontalibus magnis, profundis; thorace quadrato, polito, antice curvatim angustato (haud dilatato), angulis anticis rotundatis collo approximatis, postice vix angustato, angulis rectis, margine laterali explanato-reflexo; elytris prope apicem valde sinuato-angustatis, apice ipso (haud procul a sutura) valde spinoso, basi latis, humeris rotundatis, striatis, interstitiis planissimis, 3° tripunctato; tarsis gracilibus, subtus sat pilosis, posterioribus extus sulcatis, articulo 4° emarginato, lobo exteriori elongato, pedum anteriorum longe bilobato; episternis posticis brevibus et latis sed postice sat angustatis.

Long. 6½ lin.

Hab. COSTA RICA (*Dr. Horn, coll. Bates*).

A remarkable species, apparently allied to *C. spinipennis*, but well distinguished by the elytra being convex (and that slightly) only at the anterior fourth of their length, gradually sloping thence and flattened to the apex, and by their striæ being extremely fine, though sharply impressed, and punctulated or subinterrupted towards the sides and apex. The head and thorax are smooth, highly polished, and brassy black, with the sides of the latter (slightly transparent and rufous) explanated and strongly reflexed from the anterior to the posterior angles. The elytra are also highly polished, brownish brassy with a coppery tinge. The legs are long and slender. The metathoracic epimera are almost as short as in *C. mæstus*, but are distinctly narrowed behind.

32. *Colpodes prolixus*.

Colpodes prolixus, Bates, Proc. Zool. Soc. 1878, p. 597¹.

"Elongatus, gracilis, pedibus antennisque valde elongatis, castaneo-piceus, palpis, pedibus et antennis rufopiceis; capite elongato-ovato, post oculos crasso, rotundato, oculis vix prominulis, collo paullo angustato, supra transversim depresso; thorace quam caput vix latiore, cordato, postice sinuatim angustato, angulis postice rectis, apice obtusis; elytris oblongo-ellipticis, apice extus oblique truncatis, apud suturam triangulariter excisis, angulo apicali dentiformi, supra punctulato-striatis, interstitio 3^o tripunctato; metasterni episternis brevissimis.

"Tarsi articulo 4^o profunde emarginato, lobulis valde inæqualibus.

"Long. 6 lin."

Hab. COSTA RICA, Volcan de Irazu, 6000 to 7000 feet (*Rogers*)¹.

Unlike any other species known to me. In the length of the legs, in colour, and in the armature of the apices of the elytra it bears some resemblance to *C. melanocnemis*; but the short metathoracic episterna place it in a totally different section. The head also is of a very different form, being remarkably broad behind the scarcely prominent eyes. The antennæ are extremely long.

33. *Colpodes lyrophorus*. (Tab. V. fig. 13.)

Colpodes lyrophorus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 319.

Hab. MEXICO, Orizaba (*Sallé*).

34. *Colpodes amplicollis*.

Colpodes amplicollis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 320.

Hab. MEXICO, Orizaba (*Sallé*).

35. *Colpodes nebrïoides*.

Dyscolus nebrïoides, Chaudoir, Bull. Mosc. 1837, vii. p. 13.

Colpodes nebrïoides, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 342; id. *ibid.* 1878, p. 320.

Dyscolus cupripennis, Castelnau, Etud. Ent. p. 57 (1834)?

Hab. MEXICO, Jacale (*Sallé*), Las Vigas (*Höge*).

36. *Colpodes cyanipennis*.

Dyscolus cyanipennis, Chaudoir, Bull. Mosc. 1837, vii. p. 12.

Colpodes cyanipennis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 341; id. *ibid.* 1878, p. 320.

Hab. MEXICO, Orizaba (*Sallé*).

37. *Colpodes purulensis*.

C. amplicolli simillimus, sed gracilior, episternis posticis (ut in *C. cyanipenni*) angustioribus elytris tripunctatis. Gracilis, sicut *Anchomenus*, niger nitidus, palpis antennis pedibusque rufescenti-piceis; capite sat parvo, oculis modice prominentibus, collo subconstricto; thorace late cordato vel subeyathiformi, medio rotundato-dilatato, mox ante basin valde angustato, angulis posticis productis acutis, margine laterali toto reflexo; elytris elongato-ovatis, margine basali brevi valde arcuato, humeris late rotundatis, apice sat sinuatis et apud suturam productis, dorso parum convexo, punctulato-striato, interstitiis paululum convexis,

3° tripunctato; tarsi subtus sparsim setosis, posterioribus extus subsulcatis, articulo 4° emarginato extus haud lobato; episternis posticis ut in *C. cyanipenni* sat brevibus sed subangustatis.

Long. 4-4½ lin.

Hab. GUATEMALA, Purula (*Champion*).

38. *Colpodes intergeneus*.

Colpodes intergeneus, Bates, Proc. Zool. Soc. 1878, p. 596¹.

“Gracilis, piceo-niger; elytris purpureo-fuscis; palpis, antennis pedibusque pallide testaceis; capite collo supra transversim depresso; thorace angusto, quadrato, antice paulo rotundato-dilatato, postice vix sinuatim modice angustato, angulis posticis distinctis subobtusis, margine laterali angusto; elytris elongato-ovatis, apice oblique (haud sinuatim) truncatis, supra subtiliter subpunctulato-striatis, interstitiis planis, tertio 3-punctato.

“Tarsi 2 antici articulo 4° latiusculo, breviter bilobo, subtus longe setoso.”

Long. 4 lin.

Hab. COSTA RICA, Volcan de Irazu, 6000 to 7000 feet (*Rogers*¹).

Not unlike the common European *Anchomenus albipes*, except for its lustre and metallic coloration. It is evidently allied to *C. gratus*; but the metathoracic episterna are considerably narrower (though not longer), similar in form, in short, to the *C. cyanipennis* group.

39. *Colpodes chiriquinus*. (Tab. V. fig. 11.)

C. intergeneo proxime affinis, at major thoraceque latiore suborbiculari. Politus, niger, elytris æneis, subopalescentibus, antennis palpis pedibusque flavis; capite ovato, collo sat crasso transversim sulcato, foveis frontalibus profundis; thorace antice valde rotundato, convexo, prope basin constricto, marginibus angustis reflexis juxta angulos subrectos sinuatis, foveis basalibus profundis subrotundatis, sulcisque valde impressis; elytris elongato-ovatis, apice oblique vix sinuatim rotundatis, basi utrinque vix arcuata, humeris late rotundatis, dorso punctulato-striatis, interstitiis planatis, 3° tripunctato; tarsi gracilibus subtus sparsim longe setosis, articulo 4° brevissime æqualiter bilobo; episternis metathoracis brevibus sed angustatis.

Long. 4¾ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).

40. *Colpodes delicatulus*.

Colpodes delicatulus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 323¹.

Hab. MEXICO (*A. Deyrolle*¹).

41. *Colpodes aurotinctus*.

Colpodes aurotinctus, Bates, Proc. Zool. Soc. 1878, p. 598¹.

“Parvus, elongato-ovatus, supra nigro-æneus; elytris aurato-æneis viridi tinctis, politis; palpis, antennis, trochanteribus et tarsi rufo-piceis; corpore subtus, femoribus tibiisque nigro-piceis; capite gracili, collo angustato, supra transversim depresso; thorace quadrato, lateribus fere regulariter paulo rotundatis, postice paullulum magis quam antice angustato, angulis obtusis, margine explanato rufescente; elytris ovatis, subtiliter acute striatis, interstitiis planissimis; metasterni episternis vix elongatis.

“Long. 3¼ lin.

“Tarsi articulo 4° quatuor anteriorum profunde emarginato vel bilobo, duorum posteriorum modice emarginato, lobulis paulo inæqualibus.”

Hab. COSTA RICA, Volcan de Irazu, 6000 to 7000 feet (*Rogers*¹).

Closely allied to *C. delicatulus* (Chaud.), according to M. René Oberthür, who kindly compared an example with the types of Chaudoir in his collection.

§ 2. *Episterna metathoracica elongata, postice gradatim angustata.*

42. **Colpodes aphædrus.** (Tab. V. fig. 12.)

Colpodes aphædrus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 321; id. ibid. 1878, p. 326¹.

Hab. MEXICO, Ventanas, 2000 feet (*Forrer*), Orizaba¹, Cordova (*Sallé*), Cerro de Plumas (*Höge*); GUATEMALA, Las Mercedes, Zapote (*Champion*).

43. **Colpodes cyanides.**

C. aphædro quoad formam simillimus, sed episternis posticis basi latioribus corporeque toto cyaneo sat nitido. Elongato-oblongus, saturate cyaneus, palpis apice tarsisque rufo-piceis; capite brevior, post oculos citius angustato, oculis magis prominentibus; thorace quadrato-ovato lateribus arcuatis, marginibus late explanato-reflexis, angulis posticis obtusis, dorso transversim striato; elytris elongato-oblongis, argute punctulato-striatis, interstitiis planis, 3° tripunctato; tarsis subtus dense pilosis, posterioribus sulcis subdorsalibus utrinque duobus, articulo tertio bilobo, lobo exteriori valde elongato.

Long. 7 lin.

Hab. GUATEMALA, Tocooy (*Champion*).

One example only of this fine and distinct species appears to have been met with by Mr. Champion.

44. **Colpodes horni.**

Elongato-oblongus, sat convexus, subcyanescens-niger, nitidus, antennis, palpis et tarsis rufo-piceis; capite antice cum mandibulis elongato, mox post oculos prominentes subito angustato, collo sat constricto; palpis valde elongatis; antennis quam dimidium corporis haud longioribus; thorace transverso, antice magis quam postice angustato, lateribus valde arcuatis, margine late explanato-reflexo, apicali sat emarginato, angulis posticis rectis; elytris oblongis, humeris rotundatis, apice sat sinuatis, margine basali arcuato, dorso punctato-striato, interstitiis convexiusculis, 3° tripunctato; tarsis angustis, subtus breviter setosis, posterioribus utrinque sulcatis, articulo 4° bilobato, lobo exteriori multo longiore.

Long. 6½ lin.

Hab. COSTA RICA (*Dr. Horn, coll. Bates*).

Similar in its oblong form, with relatively long elytra, to *C. aphædrus*, but much more convex, and the thorax different in outline, being much narrowed towards the head, and the lateral flattened margins much wider and more reflexed.

45. **Colpodes porrectus.**

Colpodes porrectus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 326¹.

Hab. MEXICO (*A. Deyrolle*¹).

46. **Colpodes brachyderus.**

Colpodes brachyderus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 327.

Hab. MEXICO, Cordova (*Sallé*).

47. Colpodes macrous.*Colpodes macrous*, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 328¹.*Hab.* MEXICO, Chiapas¹.

Not represented in the Sallé collection.

48. Colpodes olivaceus.*Colpodes olivaceus*, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 328.*Hab.* MEXICO, Parada, Capulalpam (*Sallé*).**49. Colpodes striatopunctatus.***Colpodes striatopunctatus*, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 332; 1878, p. 329.*Hab.* MEXICO, Cordova (*Sallé*).**50. Colpodes rubidus.***Colpodes rubidus*, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 329.*Hab.* MEXICO, Juquila (*Boucard*, coll. *Sallé*).**51. Colpodes lætiusculus.***Colpodes lætiusculus*, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 329.*Hab.* MEXICO, Juquila (*Boucard*, coll. *Sallé*).**52. Colpodes fragilis.***Colpodes fragilis*, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 329¹.*Hab.* MEXICO (*A. Deyrolle*¹).**53. Colpodes agilis.** (Tab. V. fig. 14.)*Colpodes agilis*, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 330¹.*Hab.* MEXICO, Huachinango (*A. Deyrolle*¹), Jalapa (*Höge*).**54. Colpodes subauratus.**

C. lætiusculo similis, sed longior, thorace angulis posticis rectis, tarsisque posterioribus intus et extus sulcatis. Elongatus, gracilis, testaceo-fulvus, capite, thoracis disco pectoreque castaneis, elytris (margine fulvo excepto) viridi-æneis auronitentibus; capite, ut in *C. lætiusculo* et *C. diluto*, parvo, ovato; thorace subcordato-quadrato, antice leviter rotundato, postice parum angustato, ante angulos subrectos subsinuato, margine modice explanato-reflexo; elytris elongatis, angustis, postice paullulum ampliatis, argute striatis, interstitiis planis; tarsis subtus longe setosis, articulo 4^o profunde emarginato (pedum anticorum bilobato) lobis æqualibus, 5^o haud ciliato.

Long. 4 lin.

Hab. MEXICO, Jalapa (*Höge*).

Resembles *C. olivaceus* and *lætiusculus*, and almost identical with them in tarsal structure, except that the joints are sulcated on the inner as well as the outer sides—a

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, August 1882.

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character which, on Chaudoir's artificial system, places it in a widely different group. From *C. agilis* it differs in its larger size and in the thorax being longer and scarcely constricted behind. In the colour of the elytra it is precisely similar to that species.

55. *Colpodes tenuicornis*.

Colpodes tenuicornis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 333; 1878, p. 331.

Colpodes cycloderus, Chaudoir, 1859, p. 335; 1878, p. 331.

Stenocnemus versicolor, Motschulsky, Bull. Mosc. 1864, ii. p. 308.

Var. Elytrorum interstitiis convexiusculis.

Hab. MEXICO, Cordova, Chiapas (*Sallé*); GUATEMALA, near the city (*Salvin*), Zapote, Sabo, Dueñas, Las Mercedes, San Gerónimo, Cerro Zunil, Panajachel (*Champion*); NICARAGUA (*Sallé*); COSTA RICA (*Van Patten*); PANAMA, Volcan de Chiriqui (*Champion*), Obispo (*Salvin*).

Var. GUATEMALA, Totonicapam, Quezaltenango (*Champion*).

56. *Colpodes prolongatus*.

Colpodes prolongatus, Bates, Proc. Zool. Soc. 1878, p. 600¹.

"Valde elongatus, elegans, viridi-æneus, elytris læte aureo-cupreis; capite pone oculos elongato, gradatim angustato; thorace ovali, angulis posticis rotundatis; elytris apice sinuatis, longe productis sed haud spinosis, striatis, striis passim æqualiter fortiter incis, interstitiis planis.

"Tarsi articulo quarto 2 anteriorum bilobo, 4 posteriorum emarginato, lobulis haud prolongatis.

"Articulo unguiculari biseriatis setoso.

"Long. 6 $\frac{1}{4}$ lin."

Hab. NICARAGUA, Chontales (*Belt*¹).

Differs from *C. tenuicornis* only by its broader form, and especially its broader thorax regularly arcuated on its sides. It is probably only an extreme variety.

57. *Colpodes cæruleus*.

Colpodes cæruleus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 335; 1878, p. 331.

Hab. MEXICO, Cordova, Cuernavaca, Juquila, Capulalpam (*Sallé*), Jalapa (*Höge*).

58. *Colpodes crossomerus*.

Colpodes crossomerus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 331¹.

Hab. GUATEMALA (*Putzeys*¹).

Mr. Champion appears not to have met with this species.

59. *Colpodes columbinus*.

Colpodes columbinus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 332¹.

Hab. MEXICO¹ (*Sallé*).

60. **Colpodes sexfoveolatus.**

Colpodes sexfoveolatus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 332.

Hab. MEXICO (*Sallé*).

61. **Colpodes longipes.**

Colpodes longipes, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 333.

Hab. MEXICO, Cuernavaca (*Sallé*).

62. **Colpodes monachus.**

Feronia monacha, Dej. Sp. Gén. Col. v. p. 772¹.

Hab. MEXICO¹, Guanajuato (*Dugès, coll. Sallé*).

This species was excluded from the genus *Colpodes* by Chaudoir. I find a label, in his handwriting, attached to a specimen in the Sallé collection inscribed "gen. nov., menti dente bifido;" but the bifid mentum-tooth is not of generic value in the group of which *Colpodes* forms part, Chaudoir himself, in his monograph of 1859, giving a great range of form of the tooth in his generic diagnosis. The shape of the fourth tarsal joint is probably the character which induced him to exclude the species, this joint being simply emarginated, even in the anterior legs; but the tarsi agree with the more typical species of the genus in being rather densely clothed with setæ beneath; and the long legs and general form of the insect agree better with *Colpodes* than with *Anchomenus*. The upper surface of the joints in the posterior tarsi is bisulcate, the sulci subdorsal and approximated.

63. **Colpodes chloreus.**

C. monacho proxime affinis, differt tantum colore supra cyanescenti-viridi.

Long. $5\frac{1}{2}$ – $6\frac{1}{2}$ lin.

Hab. MEXICO, Cuernavaca (*Sallé, Boucard*).

Of similar elongate, convex form to *C. monachus*, and differing very little, except in colour, from that species. The thorax, however, appears shorter, a little more narrowed towards the head, and more abruptly sinuated posteriorly, the widest part being near the middle and not anterior to it as in *C. monachus*.

64. **Colpodes acuminatus.**

Dyscolus acuminatus, Chevrolat, Col. Mex. ii. no. 185 (1835).

Stenocnemus Chevrolati, Chaudoir, Bull. Mosc. 1837, vii. p. 10.

Colpodes acuminatus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 339; 1878, p. 335¹.

Var. Paulo robustior et latior, spinis apicalibus brevioribus.

Hab. MEXICO, Cordova (*Sallé, Höge*), Jalapa (*Höge*).

Var. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

65. *Colpodes pallidipes*.

Dyscolus (*Stenocnemus*) *pallidipes*, Chaudoir, Bull. Mosc. 1850, i. p. 381.

Colpodes pallidipes, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 339; 1878, p. 335¹.

Hab. MEXICO¹, Cordova (*Sallé*), Juquila (*Höge*); GUATEMALA, near the city, Zapote, Balheu (*Champion*).

The examples from Guatemala and Juquila have the elytra more deeply striated than those from Cordova.

66. *Colpodes melanocnemis*. (Tab. V. fig. 19.)

Colpodes melanocnemis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 335¹.

Hab. MEXICO, Parada (*Sallé*); GUATEMALA, near the city, San Joaquin, Balheu (*Champion*); COSTA RICA¹.

67. *Colpodes megalops*.

C. pallidipedi prima facie simillimus, sed differt elytris nullomodo spinosis oculisque valde prominentibus. Elongatus, gracilis, cyaneo-niger nitidus, pectore, abdomine, pedibus, palpis et antennis rufis, harum articulis 4^o-11^m apice infuscatis; capite post oculos magnos prominentes subito angustato; thorace breviter cordato, postice sinuatim angustato, angulis posticis oblique truncatis, supra strigoso; elytris prope apicem sat abrupte declivibus, vix sinuatis, striis fortiter impressis, interstitiis planis, 3^o tripunctato; tarsis gracilibus, omnibus bisulcatis, articulo 4^o bilobato, pedum posteriorum lobo exteriori vix longiore. Long. 5 lin.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

The hind angles of the thorax are peculiarly placed—the true angle, as marked by the setiferous puncture, being lateral and a little anterior to the apparent angle, giving the appearance of being obliquely truncated.

68. *Colpodes spinifer*. (Tab. V. fig. 15.)

C. variabili subsimilis, sed differt elytris apice valde spinosis. Olivaceo-æneus modice politus, subtus castaneo-fuscus, elytrorum margine deflexo pallido, palpis, antennis, trochanteribus et tarsis rufescenti-piceis; capite, sicut in *C. variabili*, ovato, post oculos haud tumidos gradatim angustato; thorace subcordato-ovato, postice modice angustato, ante angulos posticos subrectos paullulum sinuato, margine laterali sat explanato-reflexo; elytris juxta apicem sinuato-angustatis, prope suturam utrinque in spinam validam acutissimam (basi lata) prolongatis, dorso subtiliter punctulato-striatis, interstitiis planissimis, 3^o conspicue tripunctato; tarsis omnibus bisulcatis, articulo 4^o bilobato, lobo exteriori elongato.

Long. 6-6½ lin.

Hab. GUATEMALA, Dueñas, Capetillo, Cerro Zunil (*Champion*).

69. *Colpodes deyrollei*.

Colpodes deyrollei, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 336¹.

Hab. MEXICO (*Deyrolle*)¹.

70. *Colpodes niger*.

Colpodes niger, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 352; 1878, p. 337¹.

Hab. MEXICO, Orizaba¹, Cordova (*Sallé*); GUATEMALA, San Joaquin, San Juan (*Champion*); PANAMA¹, Volcan de Chiriqui (*Champion*).

71. *Colpodes unilobatus*.

C. nigro affinis, supra olivaceo-niger, nitidus, antennis palpis et pedibus rufescenti-piceis; capite pone oculos sat prominentes subito angustato; thorace breviusculo, quadrato-cordato, postice modice sinuatim angustato, angulis posticis acutis, margine laterali latius explanato modice reflexo; elytris oblongis, humeris late rotundatis versus apicem parum sinuatis, apice ipso subtruncato, angulo suturali breviter dentato, dorso basin versus striato-punctatis, striis postice gradatim profundioribus et minus punctatis; tarsis gracilibus, omnibus bisulcatis, posteriorum sulcis dorsalibus, articuli 4^{ti} lobo exteriori valde elongato (interiore nullo).

Long. 5 lin.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Cerro Zunil, Las Mercedes, El Tumbador (*Champion*).

Allied to *C. niger*, and also to *C. lamprotus*, but distinguished from the latter by the unilobular fourth joint of the hindmost tarsi, the broader thorax, and dark olive-black elytra.

72. *Colpodes melanius*.

Minus elongatus, niger politus, antennis, palpis et pedibus piceo-rufis, femoribus obscurioribus; capite lato, mox pone oculos valde prominentes subito angustato; thorace late cordato, valde transverso et rotundato, postice sinuato-constricto, angulis posticis productis acutis, margine sat late explanato-reflexo; elytris breviter oblongis, convexis, humeris late rotundatis, apice obtusis vel breviter truncatis, dorso apud basin et discum striato-punctatis, versus latus et apicem striis gradatim profundioribus; tarsis omnibus bisulcatis, posticis articulo 4^o extus longe lobato.

Long. 4-4½ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).

Allied to *C. niger*, but much broader. Possibly identical with *C. sinuosus*, Chaudoir, the very imperfect description of which leaves one in doubt; the thorax of *C. melanius*, however, appears to be much broader, and the elytra cannot be said to have a "reflet olivâtre."

73. *Colpodes opalescens*.

C. melanio similis, sed differt elytris opalescentibus, prope apicem tantum striatis. Oblongus, niger politus, elytris opalescentibus, antennis articulis basi tarsisque rufescentibus; thorace late cordato, valde transverso et rotundato, postice perparum sinuato, angulis posticis vix productis, rectis; elytris oblongis convexis, politissimis, striato-punctulatis, striis prope apicem tantum insculptis; tarsis bisulcatis, posticis articulo 4^o extus longe lobato.

Long. 4½ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).

74. **Colpodes subcyaneus.**

Colpodes subcyaneus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 339¹.

Hab. MEXICO (*Deyrolle*)¹.

75. **Colpodes æquinoctialis.**

Ophryodactylus æquinoctialis, Chaudoir, Bull. Mosc. 1850, i. p. 282.

Colpodes æquinoctialis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 339; 1878, p. 339¹.

Hab. MEXICO, Chiapas (*Sallé*); GUATEMALA (*Sallé*), near the city (*Champion*).—SOUTH AMERICA, Colombia¹, Venezuela, Bolivia.

An example sent home by Champion, and two from Chiapas, in the Sallé collection, agree perfectly with numerous specimens with which I have compared them from Venezuela and Colombia. A Guatemalan specimen in the Sallé collection is smaller and of a more violet hue, but does not agree in form or sculpture with Chaudoir's description of the allied *C. subcyaneus*.

76. **Colpodes lamprotus.** (Tab. V. fig. 18.)

C. valido similis et affinis, sed minor et differt tarsis posticis articulo 4^o extus longe lobato; tarsis omnibus bisulcatis, pedum posteriorum sulcis dorsalibus. Niger, nitidus, elytris olivaceo-æneis, aureo- (raro cupreo-) relucens; capite ut in *C. variabili* subangusto; thorace quadrato-cordato, postice quam in *C. cordato* et *variabili* minus angustato, ante angulos posticos rectos sinuato, margine laterali sat explanato-reflexo; elytris paullo convexis, humeris late rotundatis, apice valde sinuatis, apice ipso (a sutura remoto) utrinque triangulariter producto, dorso subtilissime punctulato-striatis, striis 1^a et 2^a apice profunde insculptis, interstitiis planissimis, 3^o punctis magnis tribus.

Long. 6 lin.

Hab. GUATEMALA, Cerro Zunil, Sabo, Purula (*Champion*).

Liable to be confounded with *C. cordatus* and *variabilis*, though distinct in its olive-green relucens coloration. The thorax is not nearly so much narrowed and sinuated posteriorly as in *C. cordatus*; and the elytral striæ are much more faintly impressed and punctulated.

77. **Colpodes purpuratus.**

Dyscolus purpuratus, Reiche, Rev. Zool. 1842, p. 375, no. 43¹.

Colpodes purpuratus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 340.

Dyscolus chalcopterus, Reiche, Rev. Zool. 1842, p. 375, no. 44².

Colpodes chalcopterus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 340³.

Hab. COSTA RICA, Volcan de Irazu, Rio Sucio (*Rogers*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia^{1 2 3}.

A specimen from Costa Rica, which I sent to M. de Chaudoir, was returned with the name *C. purpuratus*, Reiche; but the Central-American specimens differ from all the Colombian examples with which I have compared them in the much fainter elytral

striæ, which are not impressed, except for a short distance near the apex. The species was placed by Chaudoir in the same subsection as *C. variabilis*, "tarsi postici extus haud lobati;" but the hind tarsi are very distinctly lobed exteriorly, though the lobes are not quite so long and narrow as in *C. acuminatus* and its allies.

78. *Colpodes cordatus*.

Colpodes cordatus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 337; 1878, p. 340.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Cerro Zunil, San Gerónimo, Purula (*Champion*).

79. *Colpodes validus*.

Colpodes validus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 342; 1878, p. 340.

Hab. MEXICO, Cordova (*Sallé*), Las Vigas (*Höge*).

80. *Colpodes variabilis*.

Dyscolus variabilis, Chaudoir, Bull. Mosc. 1837, ii. p. 15.

Colpodes variabilis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 340; 1878, p. 340.

Dyscolus cupripennis, Castelnau, Etud. Ent. p. 57 (1835)?

Hab. MEXICO, Cordova, Izucar, Toxpam, Durasnal, Yolos (*Sallé*), Jalapa (*Höge*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Capetillo, Cerro Zunil, San Lucas, Calderas (*Champion*).

Variable in colour; the brilliant purple-coppery form, so prevalent in Mexico, does not appear to occur in Guatemala, all the specimens from which are brassy olivaceous.

A specimen labelled *C. propinquus*, MS., in Chaudoir's handwriting, from Puebla, in the *Sallé* collection, has the thorax much less cordate and narrowed behind than usual.

81. *Colpodes violaceipennis*.

Colpodes violaceipennis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 340; 1878, p. 340¹.

Hab. MEXICO¹, Cordova (*Sallé*), Oaxaca (*Höge*, *Fenochio*).

82. *Colpodes brullei*.

Anchomenus brullei, Chaudoir, Bull. Mosc. 1837, vii. p. 23.

Colpodes brullei, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 330; 1878, p. 341.

Hab. MEXICO, Cordova (*Sallé*).

83. *Colpodes femoralis*. (Tab. V. fig. 16.)

Colpodes femoralis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 341.

Hab. MEXICO, Juquila (*Sallé*), Cerro de Plumas (*Höge*).

84. **Colpodes gracilis.**

Colpodes gracilis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 330; 1878, p. 342¹.

Hab. MEXICO¹.

This species is not in the Sallé collection.

85. **Colpodes dilutus.**

Colpodes dilutus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 332 (excl. descript.); 1878, p. 342.

Hab. MEXICO, Cordova (*Sallé*).

Chaudoir, in his later monograph, states that he confounded three species in his prior description. There is an example bearing the name *dilutus* in his own handwriting in the Sallé collection; but whether it is a type of his first or his second description is not specified.

86. **Colpodes zunilensis.**

C. diluto affinis, differt thoracis margine sat late explanato, pallido. Nigro-fuscus, politus, elytris cupreo-æneis, antennis, palpis pedibusque piceo-rufis; capite convexo, collo constricto; thorace cordato-quadrato, postice sinuatim angustato, angulis posticis subrectis elevatis, margine late explanato-reflexo; elytris oblongis, postice parum ampliatis, versus apicem sinuatis, apice utrinque sat producto, juxta saturam vix oblique subtruncato, dorso subpunctulatum striato, interstitiis planis, 3^o tripunctato; tarsis gracilibus bisulcatis (pedum anteriorum sulcis fere obsoletis), articulo quarto emarginato.

Long. 4 $\frac{1}{4}$ lin.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

The species resembles *C. dilutus* in the very feebly produced angles of the fourth tarsal joint, which do not form lobes even in the front legs.

87. **Colpodes incomis.**

Minor, nigro-piceus nitidus, elytris olivaceis, palpis, pedibus antennisque piceis (his articulis 4 basalibus obscurioribus); capite modice elongato, post oculos modice prominentes angustato, collo subconstricto; thorace quadrato-cordato (fere ut in *C. variabili*), postice sinuatim angustato, angulis posticis rectis, margine sat explanato-reflexo interdum rufescente; elytris oblongis, parum elongatis, subparallelis, apice sinuatis, modice productis, margine basali valde arcuato ad humeros angulato, dorso profunde striatis, interstitiis paullulum convexis; tarsis omnibus sulcatis, articulo 4^o emarginato.

Long. 4 $\frac{1}{4}$ lin.

Hab. GUATEMALA, Balheu (*Champion*).

Differs from the allied species of the same group by the strongly impressed elytral striæ and slightly raised interstices.

88. **Colpodes nitidus.**

Discolus nitidus, Chaudoir, Bull. Mosc. 1837, iii. p. 8.

Colpodes nitidus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 319; 1878, p. 346¹.

Colpodes planicollis, Chaudoir, 1859, p. 320.

Hab. MEXICO¹, near the capital (*Flohr*).

An example sent to M. René Oberthür for comparison with Chaudoir's types was returned to me named *C. nitidus*. It resembles *C. sphodroides*, and has not much narrower metathoracic epimera than that species. The depth and width of the tarsal sulci vary greatly; in some specimens the grooves are quite indistinct.

89. *Colpodes incommodus*.

Colpodes incommodus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 347¹.

Hab. MEXICO, Chiapas (*Putzeys*¹).

90. *Colpodes lyratus*.

Colpodes lyratus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 347.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*), Capulalpam, Cuernavaca, Durasnal (*Sallé*), Jalapa, Paso del Macho, Oaxaca (*Höge*); GUATEMALA, near the city (*Champion*).

91. *Colpodes lactipes*. (Tab. V. fig. 17.)

Colpodes lactipes, Bates, Proc. Zool Soc. 1878, p. 597¹.

“Nigro-piceus, pedibus albo-testaceis, palpis antennisque rufo-testaceis; labro et mandibulis piceo-rufis; thorace cordato, antice fortiter rotundato, postice valde angustato, ante angulos breviter recto; elytris amplis, convexis, apice sinuatis, iridescentibus, striatis, interstitio 3^o tripunctato; metasterni episternis elongatis.

“Long. 5 lin.

“Tarsi articulo 4^o latiusculo, pedum 2 anteriorum breviter bilobo, 4 posteriorum emarginato.”

Hab. NICARAGUA, Chontales (*Belt*)¹.

Closely allied to *C. lyratus*, but the thorax much more rounded anteriorly and more constricted (with sinuated margin) behind; the antennæ and legs are much lighter-coloured.

92. *Colpodes leucoscelis*.

C. lyrato subsimilis, paullo gracilior, tarsorum posticorum articulo 4^o extus lobato etc. Elongatus, cupreo-fuscus nitidus, antennis, palpis pedibusque pallide fulvo-testaceis, femoribus paullo obscurioribus; oculis sat prominentibus; thorace fere ut in *C. lyrato* cordato, angulis posticis fere rectis margine angusto, reflexo; elytris postice oblique sinuatis, apice usque ad suturam breviter subtruncato, dorso striato-punctato versus apicem striis gradatim profundioribus, interstitio 3^o tripunctato; tarsis anticis haud distincte sulcatis, posterioribus bisulcatis.

Long. 4½ lin.

Hab. GUATEMALA, Pantaleon (*Champion*).

93. *Colpodes obscurus*.

Colpodes obscurus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 322; 1878, p. 347.

Hab. MEXICO, Cordova (*Sallé*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, August 1882.

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94. **Colpodes atratus.**

Colpodes atratus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 323; 1878, p. 348¹.

Colpodes obscurellus, Bates, Proc. Zool. Soc. 1878, p. 596².

Hab. MEXICO¹, Orizaba, Juquila (*Sallé*), Jalapa, Oaxaca (*Höge*); GUATEMALA (*Sallé*); COSTA RICA, Volcan de Irazu (*Rogers*²); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia¹.

95. **Colpodes quadridentatus.**

Elongatus, piceo-niger, nitidus, elytris violaceo-relucentibus, antennis palpis et pedibus castaneo-rufis; capite ovato, post oculos sat prominentes gradatim angustato, collo constricto; thorace quadrato-ovato, transverso, lateribus fere æqualiter arcuatis margineque late explanato-reflexo, angulis posticis late rotundatis, posticis distinctis, obtusis, fere rectis; elytris elongato-oblongo-ovatis, medio dorso convexis, apicem versus planatis, apice ipso utrinque bidentatis, dente exteriori longiore fere spinoso, dente suturali parvo, margine prope apicem oblique sinuato, dorso profunde punctulato-striato, interstitiis fere planis, 3^o tripunctato; tarsi omnibus latis, subtus dense pilosis, extus (articulo primo intus) sulcatis, articulo 4^o bilobato, lobo exteriori lato et elongato.

Long. 6 lin.

Hab. COSTA RICA (*Dr. Horn, coll. Bates*).

Fits into none of the groups in Chaudoir's classification. In general form it resembles *C. buckleyi* and *C. longipennis*, and in tarsal structure approaches *C. cæruleomarginatus* and its allies.

96. **Colpodes cyanonotus.**

Dyscolus cyanonotus, Chaudoir, Bull. Mosc. 1850, i. p. 386.

Colpodes cyanonotus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 344; 1878, p. 349¹.

Hab. NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).—SOUTH AMERICA, Colombia¹.

97. **Colpodes cyanostolus.**

Colpodes cyanostolus, Bates, Proc. Zool. Soc. 1878, p. 598¹.

"*C. cyanonoto* affinis; differt thoracis angulis posticis fere rotundatis. Oblongus, violaceo-vel chalybeo-niger, supra cæruleus; thorace lateribus regulariter rotundatis, angulis posticis obtusis; elytris subtilissime punctulato-striatis, striis apice haud profundioribus.

"Tarsi articulo quarto bilobato, lobis valde inæqualibus.

"Long. 5½ lin."

Hab. NICARAGUA, Chontales (*Belt*)¹.

An example of this species submitted to M. René Oberthür was returned as new to the Chaudoir collection.

98. **Colpodes chontalensis.**

Colpodes chontalensis, Bates, Proc. Zool. Soc. 1878, p. 598¹.

"*C. cyanonoto* affinis, niger; elytris viridi-æneis, fortiter punctulato-striatis, striis apice haud profundioribus,

interstitiis paulo convexis; thorace quadrato, lateribus regulariter rotundatis, postice haud sinuatis; antennis rufo-piceis.

“Long. $5\frac{1}{2}$ lin.”

Hab. NICARAGUA, Chontales (*Belt*)¹.

99. *Colpodes transversicollis*.

Colpodes transversicollis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 343; 1878, p. 350¹.

Hab. MEXICO¹, Cordova (*Sallé*); GUATEMALA, Zapote (*Champion*).

100. *Colpodes picicornis*.

Colpodes picicornis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 350.

Hab. MEXICO, Cordova (*Sallé*).

101. *Colpodes proteinus*.

Valde elongatus, niger, elytris fusco-æneis nitidis, antennis, palpis, tibiis et tarsis piceo-rufis; capite elongato, post oculos vix prominentes gradatim angustato; thorace ovato, angusto, lateribus æqualiter sed paullo arcuatis, angulis rotundatis, margine æqualiter et modice explanato-reflexo, basi lævi; elytris basi paullulum angustioribus, apice sinuatis modice productis, dorso acute striatis, interstitiis planis, tertio tripunctato; tarsis bisulcatis, sulcis subdorsalibus, posticis articulo 4^o profunde emarginato, angulis æqualiter productis.

Long. 6 lin.

Hab. GUATEMALA, Capetillo (*Champion*).

This species will not range well under any of Chaudoir's numerous subdivisions. In tarsal structure it agrees with the *C. brullei* group, from which it differs by its oval thorax with obsolete posterior angles.

102. *Colpodes cæruleomarginatus*.

Dyscolus cæruleomarginatus, Mannerheim, Bull. Mosc. 1837, ii. p. 45.

Colpodes cæruleomarginatus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 350.

Hab. MEXICO, Cordova (*Sallé*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Las Mercedes, San Joaquin, Sabo, El Tumbador, Senahu (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); COSTA RICA, Volcan de Irazu (*Rogers*); PANAMA, Volcan de Chiriqui (*Champion*).

103. *Colpodes superbus*.

Colpodes superbus, Bates, Proc. Zool. Soc. 1878, p. 599¹.

“*C. cæruleomarginato* affinis, nigro-politus, elytris læte aureo-cupreis; palpis, antennis et tarsis rufo-piceis; capite mox pone oculos prominentes angustato; thorace medio fortiter dilatato, antice gradatim, postice citius et valde sinuatim angustato, angulis posticis exstantibus rectis; elytrorum striis vix conspicuis.

“Long. $6\frac{1}{4}$ lin.”

Hab. NICARAGUA, Chontales (*Belt*)¹.

104. Colpodes princeps.

Colpodes princeps, Bates, Proc. Zool. Soc. 1878, p. 599¹.

“*C. cæruleomarginato* affinis, cæruleus, elytris læte purpureo-cupreis; thorace antice magis quam postice angustato, medio subangulatim dilatato, lateribus postice nullomodo sinuatis, angulis posticis obtusis; elytris striato-punctatis, margine incrassato cæruleo.

“Long. 5½ lin.”

Hab. NICARAGUA, Chontales (*Belt*¹).

105. Colpodes viridiauratus.

Colpodes viridiauratus, Bates, Proc. Zool. Soc. 1878 (Oct. 1st) p. 599¹.

Colpodes insignis, Chaudoir, Ann. Soc. Ent. Fr. 1878 (March 26th, 1879), p. 355².

Colpodes politus, Putzeys, Mittheil. Münch. ent. Ver. Heft ii. 1878³ (nec *politus*, Chaud.).

Hab. NICARAGUA, Chontales (*Belt*¹); PANAMA².—SOUTH AMERICA, Colombia³.

The type specimen of *C. viridiauratus* was submitted to M. de Chaudoir, who returned it with a note bearing the above synonymy. He did not state whether the *C. politus*, Putz., was the same as *C. politus*, Chaud., published about the same time; the latter appears from the description to be similar in form and colour, but much smaller.

106. Colpodes chrysopterus.

Colpodes chrysopterus, Bates, Proc. Zool. Soc. 1878, p. 599¹.

“Elongatus, niger nitidus, elytris aurato-æneis; thoracis margine, palpis, antennis et tarsis rufescenti-piceis; capite mox pone oculos magnos subito angustato; thorace fere ut in *C. cæruleomarginato*, medio rotundato-dilatato, lateribus postice sinuato-angustatis, angulis posticis subrectis; elytris elongatis, striato-punctatis, versus apicem striis acute incisus et minus punctulatis.

“Tarsi lati, subtus dense pubescentes, articulo 4° bilobo.

“Long. 5½ lin.”

Hab. NICARAGUA, Chontales (*Belt*¹).

Var. Major (6¼ lin.) elytris subpurpureo-cupreis.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

107. Colpodes bicolor.

Colpodes bicolor, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 351.

Hab. MEXICO, Puebla (*Sallé*); HONDURAS (*Sallé*).

108. Colpodes reflexicollis.

Colpodes reflexicollis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 328; 1878, p. 353¹.

Hab. MEXICO, Orizaba¹, Cordova (*Sallé*).

109. Colpodes pectoralis.

Colpodes pectoralis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 353¹.

Hab. MEXICO, Orizaba (*Gautard*¹).

110. **Colpodes phæolomus.**

Colpodes phæolomus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 357.

Hab. MEXICO, Santecomapan (*Sallé*), Jalapa (*Höge*); HONDURAS, river Hondo (*Blancaneaux*).

111. **Colpodes chaudiiri.**

Colpodes chaudiiri, Coquerel, Ann. Soc. Ent. Fr. 1866, p. 307.

Colpodes sexpunctatus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 345.

Hab. MEXICO, Cordova, Toxpam (*Sallé*), Jalapa (*Höge*).

112. **Colpodes metallicus.**

Colpodes metallicus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 345; 1878, p. 358¹.

Hab. MEXICO, Cordova¹, Toxpam (*Sallé*); GUATEMALA, Sabo, Chiacam, Senahu, Cerro Zunil, Cubilguitz, Sinanja (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Guatemala examples vary considerably in the degree of prolongation of the elytral apices, in the relative length of the elytra, and in the size of the punctures, thus bridging over the differences between this species and *C. chaudiiri*.

113. **Colpodes orbicollis.**

Colpodes orbicollis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 346; 1878, p. 358¹.

Hab. MEXICO¹, Cordova, Santecomapan (*Sallé*), Jalapa (*Höge*), Tehuantepec (*Sumichrast*, coll. *Sallé*); BRITISH HONDURAS, river Hondo (*Blancaneaux*); GUATEMALA, Las Mercedes, San Gerónimo, Zapote (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

114. **Colpodes reflexus.**

Colpodes reflexus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 347; 1878, p. 358¹.

Hab. MEXICO, Cordova¹.

There are two examples named as this species in the *Sallé* collection; but they differ from Chaudoir's description in essential points, viz. the narrow margin of the thorax and the punctured striæ of the elytra.

115. **Colpodes ruficornis.**

Colpodes ruficornis, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 346; 1878, p. 358.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Las Mercedes, Volcan de Atitlan (*Champion*).

Of the two examples labelled as above in the *Sallé* collection, one agrees with the description of the species, but the other is *C. orbicollis*. Guatemala examples are a little larger than the type (9 millim.).

116. *Colpodes fratellus*.

Colpodes fratellus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 358¹.

Hab. MEXICO, Oaxaca¹, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA, San Gerónimo, Volcan de Atitlan (*Champion*).

117. *Colpodes jalapensis*.

Elongatus, subgracilis, piceo-niger nitidus, elytris obscure cyanescenti- vel viridi-ænescenti-nigris, antennis tarsisque piceo-fulvis; thorace subquadrato, antice paullo citius et magis quam postice angustato, medio subangulatim et parum dilatato, margine explanato, modice reflexo, rufescente, angulis posticis rectis, foveis subpunctatis; elytris apice sinuatis nullomodo productis, dorso punctulato-striatis, striis (præcipue versus apicem) sat valde impressis, interstitio 3° tripunctato; tarsi ut in subsektione *C. metallico*, *fratello* etc., utrinque sulcatis, posticis articulo 4° extus longe lobato.

Long. 5 lin.

Hab. MEXICO, Jalapa (*Höge*).

Extremely near *C. fratellus*, Chaud., according to the type specimen in the Sallé collection, but rather larger and much less vividly metallic in colour, the elytra in all the examples I have seen of *C. fratellus* agreeing with the type in being of a bright brassy or greenish-brassy colour, whilst *C. jalapensis* is as constantly of a dark greenish cyaneous hue. The thorax also is much less cordate or rounded anteriorly.

118. *Colpodes scabricollis*.

Quoad formam medium tenet inter *C. metallicum* et *C. fratellum*; paullo angustior, thoraceque ovato-quadrato lateribus paullulum usque ad angulos posticos obtusos arcuatis, foveis basalibus latis grosse sed haud profunde scabroso-punctatis, margine laterali anguste (postice paullo latius) reflexo-explanato, rufo; elytris læte viridi-æneis, apice singulatim sat longe productis extus sinuatis, dorso punctato-striatis (punctis quam in *C. metallico* et *C. fratello* multo majoribus), interstitiis omnino planissimis, 3° grosse tripunctato; antennis fulvis, palpis pedibusque (femoribus obscuris) fulvo-piceis; tarsi bisulcatis, posticis articulo 4° extus longe lobato.

Long. 4½ lin.

Hab. GUATEMALA, Cerro Zunil, Zapote, Volcan de Atitlan (*Champion*).

119. *Colpodes erythrocerus*.

Colpodes erythrocerus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 348; 1878, p. 359.

Hab. MEXICO, Cordova (*Sallé*), Jalapa (*Höge*).

120. *Colpodes parviceps*.

Colpodes parviceps, Bates, Proc. Zool. Soc. 1878, p. 597¹.

“Ellipticus, æneo-olivaceus, politus, antennis, tibiis et tarsi rufo-testaceis; palpis piceis, articulo ultimo apice attenuato rufo; capite parvo, oculis prominulis, mox pone oculos angustato; thorace quadrato, antice longe, postice paullulum angustato, marginibus explanatis, angulis posticis rectis; elytris oblongis, prope basin transversim convexis, apice leviter sinuatis, dorso striato-punctulatis, striis prope basin evanescentibus, prope apicem incis; metasterni episternis elongatis, angustis.

“Tarsi articulo quarto profunde emarginato, lobulis valde inæqualibus.

“Long. 4 lin.”

Hab. NICARAGUA, Chontales (*Belt*¹); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, San Juan, Cubilguitz (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Closely allied to *C. orbicollis*, and so much resembling that species that M. Oberthür returned specimens submitted to him for comparison with the Chaudoirian types as the same. It seems to me, however, sufficiently distinct by the rectangular or sub-acute and elevated hind angles of the thorax, the form of which is determined by a slight sinuation of the sides (near the angle) and an incurvation of the basal margin on each side. The punctuation and depth of striæ of the elytra vary much, examples from Guatemala and British Honduras being much more finely sculptured than those from Chiriqui.

121. *Colpodes lissomus*.

C. orbicollis proxime affinis, differt elytrorum striis obsoletis, thorace medio valde rotundato-dilatato. Oblongo-ovatus, niger, politus; elytris olivaceo-æneis, antennis, palpis et tarsi piceo-fulvis; thorace transverso lateribus valde et æqualiter arcuatis, angulis obtusis, margine laterali late explanato-reflexo rufo, tota basi (foveis profundis) lævi; elytris parallelis, apice conjunctim productis, dorso lævi, striis 1^a, 8^a et 9^a tantum sat leviter impressis, cæteris punctulis minutis adumbratis; tarsi gracilibus, articulo 4^o extus longe lobato.

Long. $3\frac{1}{2}$ lin.

Hab. NICARAGUA, Chontales (*Belt*).

122. *Colpodes hemicyclicus*. (Tab. V. fig. 22.)

C. orbicollis iterum affinis, differt thorace fere semicirculari, ad basin latissimo (angulis acutis), a quarta parte posteriore usque ad apicem valde angustato, lateribus prope angulos posticos explanatis, sed margine ipso incrassato et reflexo, foveis basalibus brevibus ab angulis valde remotis. Nigro-æneus, politissimus, elytris olivaceo-æneis, antennis rufis, palpis pedibusque rufo-piceis; elytris sat convexis, apice conjunctim obtuse rotundatis prope apicem paullulum emarginatis, dorso punctulato-striatis, striis versus apicem tantum impressis, interstitiis planissimis. Cætera ut in *C. orbicollis* et affinibus.

Long. $3\frac{3}{4}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

123. *Colpodes convergens*.

C. orbicollis affinis, major, thorace medio haud rotundato-dilatato, gradatim a basi usque ad apicem arcuato-angustato, angulis anticis haud productis ad collum approximatis, angulis posticis ut in *C. orbicollis* obtusis subrectis, margine laterali magis explanato (rufo), usque ad angulum arcuato ibique magis dilatato et reflexo, foveis basalibus profundissimis punctatis, a linea dorsali et angulo æqualiter distantibus. Æneo-niger politus, elytris fusco-cupreo-æneis, antennis fulvis, palpis tarsiisque rufo-piceis; elytris subgrosse striato-punctatis, striis versus apicem tantum acute insculptis.

Long. 4-4 $\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Intermediate in form of thorax between *C. orbicollis* and *C. hemicyclicus*.

124. *Colpodes ampliatus*.

C. metallico et *C. orbicollis* affinis, sed multo major, niger nitidus, elytris viridi-æneis, antennis, palpis pedibusque

nigris interdum partim rufo-piceis, oculis majoribus, collo magis constricto; thorace fere ut in *C. metallico* sed paullo latiore, lateribus modice arcuatis, antice magis quam postice angustato, angulis posticis rectis, margine explanato-reflexo, foveis basalibus magnis latis punctatis; elytris amplis, basi utrinque sat arcuatis, humeris late rotundatis, apice subproductis sinuatis, dorso subtiliter et æqualiter usque ad apicem punctulato-striatis interstitiisque planissimis.

Long. 5 lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Var. Thoracis angulis posticis apice obtusis, fere ut in *C. orbicollis*.

Hab. BRITISH HONDURAS, river Hondo (*Blancaneaux*).

125. *Colpodes dyschirioides*. (Tab. V. fig. 23.)

Ad subsectionem *C. orbicollis* et *C. metallici* pertinet, sed minor et multo angustior. Angustissimo-oblongus, convexus, niger politus, elytris æneis, antennis fulvis, palpis et pedibus piceis, tibiis et tarsis pallidioribus; capite angusto post oculos gradatim angustato; thorace elongato medio subangulatim dilatato, antice et postice angustato, lateribus rufis explanato-reflexis, margine tenui ante angulos posticos rectos valde sinuato, tota basi sparsim punctata; elytris elongatis, apice parum sinuatis, dorso antice grosse striato-punctato, postice profunde striato, interstitio 3^o tripunctato.

Long. 3½ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

126. *Colpodes conicicollis*.

Colpodes conicicollis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 362¹.

Hab. MEXICO, Oaxaca¹, Capulalpam (*Sallé*), Tehuacan (*Höge*).

127. *Colpodes inops*.

Colpodes inops, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 363.

Hab. MEXICO, Capulalpam (*Sallé*), Jalapa (*Höge*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Capetillo (*Champion*).

128. *Colpodes limbicollis*.

Colpodes limbicollis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 363.

Hab. MEXICO, Puebla, Juquila (*Sallé*).

129. *Colpodes semirufus*.

Abropus semirufus, Motschulsky, Bull. Mosc. 1864, ii. p. 311¹.

Colpodes semirufus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 364².

Hab. GUATEMALA, Cerro Zunil, Volcan de Atitlan, Zapote, Aceituno, Las Mercedes (*Champion*); NICARAGUA¹; COSTA RICA²; PANAMA, Volcan de Chiriqui (*Champion*).

130. *Colpodes quadrilaterus*.

C. semirufus proxime affinis, differt thorace magis quadrato, antice minus angustato, lateribus rectis, foveis minus punctatis. Castaneo-fuscus, nitidus, elytris æneis, minus viridibus, striis multo subtilioribus prope

apicem evanescentibus, punctulis tenuissimis; antennis, palpis et pedibus rufis; tarsiis posticis articulo primo intus tantum obsolete sulcato.

Long. $4\frac{1}{2}$ lin.

Hab. MEXICO, Jalapa (*Höge*).

131. *Colpodes iricolor*.

C. semirufus affinis, thorace ut in hac specie a basi usque ad apicem recte et sat valde angustato, sed differt elytrorum apice utrinque triangulariter producto etc. Castaneo-fuscus, nitidus, elytris viridi-æneis, sutura, fasciis duabus antepicalibus (prima suturam haud attingente) igneo-cupreis, antennis et tarsiis fulvo-piceis; elytris grossius punctato-striatis, striis versus basin vix, versus apicem distincte, impressis.

Long. $4\frac{1}{2}$ lin.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

132. *Colpodes ignicauda*. (Tab. V. fig. 20.)

C. semirufus affinis, differt thorace multo brevior, lateribus paullo minus rectis etc. Niger, nitidus, antennis tarsiisque piceo-fulvis, elytris læte viridi- vel cyaneo-æneis, limbo laterali fasciaque lata subapicali igneo-cupreis, dorso subtiliter punctulato-striatis, striis æqualiter passim impressis, interstitiis subconvexis, apice fere ut in *C. semirufus* subobtusè rotundato.

Long. $4\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui, Caldera, Boquete (*Champion*).

133. *Colpodes approximatus*.

Colpodes approximatus, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 370¹.

Hab. MEXICO¹.

134. *Colpodes purpuripennis*.

Colpodes purpuripennis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 377¹.

Hab. MEXICO, Oaxaca¹, Durasnal, Parada (*Sallé*), Cerro de Plumas (*Höge*).

135. *Colpodes lebioides*. (Tab. V. fig. 21.)

Colpodes lebioides, Bates, Proc. Zool. Soc. 1878, p. 599¹.

"*C. chalybeus* affinis, niger, capite thoraceque æneo tinctis, elytris cæruleis; antennis tarsiisque rufo-piceis; capite parvo, mox pone oculos angustato; thorace parvo, quadrato, medio leviter dilatato, angulis posticis subrectis; elytris latiusculis et brevibus, paullo convexis, apice haud sinuatis, acute striatis, interstitiis planis.

"Tarsi supra trisulcati.

"Long, $3-3\frac{3}{4}$ lin."

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Las Mercedes, La Tinta, Mirandilla (*Champion*); NICARAGUA, Chontales (*Belt*¹); PANAMA, Volcan de Chiriqui (*Champion*).

A specimen of this species in the Sallé collection is ticketed, in the handwriting of Chaudoir, "*C. azureipennis* (Chaud.)." This must be a mistake, as the species has not the tarsal structure of the group to which Chaudoir refers his *C. azureipennis*, but unmistakably that of the *C. chalybeus* group.

ONYPTERYGIA.

Onypterygia, Dejean, Sp. Gén. Col. v. p. 346.

This elegant and richly-coloured genus is peculiar to Mexico and Central America. Twelve species were enumerated by Chaudoir in his 'Revision' published in 1877.

1. *Onypterygia sallæi*.

Onypterygia sallæi, Chaudoir, Rev. et Mag. de Zool. 1863, p. 225.

Hab. MEXICO, Cordova (*Sallé*), Jalapa, Juquila (*Höge*).

2. *Onypterygia höpfneri*.

Onypterygia höpfneri, Dejean, Sp. Gén. Col. v. p. 347.

Hab. MEXICO, Juquila (*Sallé*); GUATEMALA, Cerro Zunil, Senahu, Sinanja, Dueñas, Capetillo (*Champion*).

3. *Onypterygia iris*.

Onypterygia iris, Chaudoir, Rev. et Mag. de Zool. 1863, p. 225.

Hab. MEXICO, Cordova (*Sallé*), Jalapa (*Höge*).

4. *Onypterygia quadrispinosa*. (Tab. V. fig. 24.)

O. iridi affinis, coloribusque similis, sed multo major, elytris apice valde productis, utrinque acute bidentatis. Valde elongata, convexa, ænea vel chalybea polita, elytris splendide viridi-auratis, vitta lata laterali (marginem haud attingente), postice versus suturam curvata, purpureo-cuprea; capite post oculos prominentes subito constricto; thorace quadrato-ovato, angulis rotundatis; elytris parallelis prope apicem sinuatim angustatis, apice ipso breviter sinuato-truncatis, angulis acute dentatis, dorso subtilissime striato-punctato, marginem et apicem versus lævi, stria suturali impressa prope apicem profunde et late insculpta, interstitio 3° bipunctato.

Long. 7-8 lin.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

5. *Onypterygia championi*.

Modice elongata, cyaneo-ænea, polita, elytris utrinque vitta arcuata (post medium extus curvata deinde ad apicem vittæformiter prolongata), vitta suturali fasciaque prope apicem læte purpureo-cupreis aureo marginatis; capite post oculos modice prominentes gradatim angustato; thorace latiusculo, quadrato, antice magis quam postice angustato, lateribus paullo arcuatis, margine sat late explanato-reflexo, angulis posticis rotundatis; elytris prope apicem oblique sinuato-angustatis, apice parum prolongato, breviter truncato, angulo exteriori longe spinoso, suturali recto, dorso punctulato-striato, interstitio 3° punctis magnis tribus, quartoque prope apicem.

Long. 5½ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

This and the two preceding species have the marginal row of umbilicated punctures much more strongly impressed and irregular in size than in the other species of the genus.

6. Onypterygia fulgens.

Onypterygia fulgens, Dejean, Sp. Gén. Col. v. p. 348; Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 275.

Hab. MEXICO, Cordova, Panistlahuca (*Sallé*), Jalapa (*Höge*); GUATEMALA, near the city (*Salvin*), San Gerónimo, Capetillo, Dueñas, El Tumbador, Las Mercedes (*Champion*).

Var. 1. Cærulescens, elytris concoloribus, striisque magis impressis.

Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 275¹.

Hab. Cuernavaca (*Boucard*¹).

Var. 2. Color ut in var. 1; elytris profundius striatis, interstitiis convexis.

Hab. Ventanas (*Forrer*).

7. Onypterygia thoreyi.

Onypterygia thoreyi, Mannerheim, Bull. Mosc. 1844, iv. p. 869.

Hab. MEXICO, Cuernavaca (*Sallé*).

8. Onypterygia tricolor.

Onypterygia tricolor, Dejean, Sp. Gén. Col. v. p. 349; Chevrolat, Col. Mex. ii. no. 157.

Var. apicalis, Chaudoir, Bull. Mosc. 1837, vii. p. 12; id. Ann. Soc. Ent. Fr. 1878, p. 277.

Hab. MEXICO, Vera Cruz, Cordova, Cuernavaca, Panistlahuca, Oaxaca (*Sallé*), Jalapa (*Höge*); GUATEMALA, San Gerónimo, Zapote, Cerro Zunil (*Champion*); NICARAGUA, Chontales (*Janson*).

9. Onypterygia chrysur.

O. fulgenti similis, sed multo minor, apicibusque elytrorum ut in *O. tricolori* oblique truncatis, dente suturali parvissimo exteriori producto. Gracilis, subtus (cum epipleuris elytrorum) nigro-ænea vel chalybea, supra læte cyaneo-ænea, elytris postice et lateraliter auratis; capite velut in *O. fulgente*; thorace angustius et longius quadrato-ovato, lateribus perparum sed æqualiter arcuatis, angulis posticis rotundatis; elytris prope apicem oblique sinuatis, apice ipso brevissime oblique truncato, angulo suturali vix prominenti, exteriori longius producto, dorso nitido, subtiliter sed passim argute punctulato-striatis.

Long. 5½–6 lin.

Hab. GUATEMALA, Zapote, San Gerónimo, Cerro Zunil (*Champion*).

10. Onypterygia famini.

Onypterygia faminii, Solier, Ann. Soc. Ent. Fr. 1835, p. 113.

Onypterygia viridipennis, Chevrolat, Col. Mex. ii. no. 158 (1835)¹.

Onypterygia humilis, Chevrolat, loc. cit. no. 159 (1835).

Onypterygia fulgipennis, Castelnau, Hist. Nat. Col. i. p. 42 (1840).

Onypterygia famini, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 276².

Hab. MEXICO, Las Vigas¹, Orizaba, Puebla, Huatusco (*Sallé*), Jalapa, Cerro de Plumas (*Höge*); GUATEMALA (*Sallé*), Purula, Senahu, Capetillo (*Champion*); COSTA RICA².

11. *Onypterygia cyanea*.

Onypterygia cyanea, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 277¹.

Hab. MEXICO, Oaxaca¹, Istapan, Cuernavaca (*Sallé*).

12. *Onypterygia angustata*.

Onypterygia angustata, Chevrolat, Col. Mex. ii. no. 160¹; Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 276².

Hab. MEXICO, Cruz Blanca¹, Cordova, Juquila (*Sallé*), Jalapa (*Höge*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Capetillo (*Champion*), near the capital (*Salvin*); COSTA RICA².

Var. Striis grossius punctatis et minus acute insculptis.

Hab. GUATEMALA, Capetillo.

The strongly-punctured variety occurs in Guatemala in the same locality as the normal Mexican form. The prevailing colour of the elytra in Mexican examples is brilliant golden green, deepening into rich purple-coppery before the apex, the apex itself being bordered with steel-black, preceded by a purple fascia margined with green. The coloration therefore resembles that of *O. iris* and allies, to which the species is further allied by the large and irregular marginal punctures. The colour of the elytra, however, varies much: examples from Jalapa and Capetillo are coppery, with the apex bordered with golden green, and other varieties occur.

13. *Onypterygia longispinis*. (Tab. V. fig. 25.)

Elongata, nigra, polita, elytris variantibus splendide cupreis apice auratis, purpureis apicem versus cyaneis, æneis apicem versus late cupreis, viridi-æneis apice tantum cupreis, etc.; capite angusto; thorace velut in *O. angustata*, oblongo, lateribus paullulum arcuatis, ante angulos posticos rectos subsinuatis; elytris apice utrinque spina longa et valida armatis, intus usque ad suturam oblique truncatis, dorso subtiliter punctato-striatis.

Long. 4-4½ lin.

Hab. GUATEMALA, Cerro Zunil, Sinanja (*Champion*).

Var. Striis grossius punctatis et minus acute insculptis; thorace basi sparsim punctato.

Hab. GUATEMALA, Sabo (*Champion*).

14. *Onypterygia æneipennis*.

Onypterygia æneipennis, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 276.

Hab. MEXICO, Juquila (*Sallé*).

15. *Onypterygia pallidipes*.

Onypterygia pallidipes, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 276.

Hab. MEXICO, Puebla (*Sallé*).

The type specimen in the *Sallé* collection seems to be scarcely more than an immature individual of *O. æneipennis*.

16. *Onypterygia pusilla*.

Onypterygia pusilla, Chaudoir, Ann. Soc. Ent. Fr. 1878, p. 276.

Hab. MEXICO, Cordova, Juquila (*Sallé*), Jalapa (*Höge*); GUATEMALA, Senahu (*Champion*).

Subfam. *PERIGONINÆ*.

Since this subfamily was proposed, under the name *Trechichinæ*, in the "Geodephagous Coleoptera of Japan" (Trans. Ent. Soc. 1873), M. Putzeys discovered that the genus *Perigona*, described by Castelnau as far back as 1835, belongs to the group, and is synonymous with, or at least very closely allied to, *Trechicus*, proposed long afterwards. Further examination has convinced me that *Diploharpus*, Chaud., also belongs to the subfamily, as well as the genus *Mizotrechus*, described by me in 1872 (Ent. Monthly Mag. viii. p. 199). The last-mentioned genus, however, must be restricted to the typical species *M. novemstriatus*, the remainder being referable to *Perigona*.

Dr. Horn, in his recent work on the Carabidæ, places the subfamily as a subordinate group under the Platyni (=Anchomeninæ); but I think it is clear we have here to deal with a modification of the Carabideous type quite distinct from the Platyni. The total absence of subapical sinuation in the margins of the elytra, the peculiar striation, in which the eighth stria is more deeply impressed than the rest and is continuous to the apex, the paraglossæ adherent (although only by a thin membrane) to the upper angles of the ligula, the partial pubescence of the third (and sometimes the second) joint of the antennæ, and the gradually pointed terminal joint of the palpi, form a combination of characters quite unlike those of the Anchomeninæ. Some features of their structure point towards the group Bipalmati; and the peculiar striation seems to indicate an affinity with the Stenolophinæ, certain Australian species allied to *Acupalpus* showing an approach towards it; but from the former of these groups the subfamily is distinguished by the anterior tarsi of the male having three joints clothed beneath with ragged squamæ, and from the second by the presence of two (instead of one) superorbital setæ.

DIPLOHARPUS.

Diploharpus, Chaudoir, Bull. Mosc. ii. p. 394 (1850).

A genus exclusively tropical American. The majority of the species are distinguished from *Perigona* by the elongated straight and porrected mandibles, maxillæ, and palpi; but these are connected with normal forms of *Perigonæ* by species showing nearly all gradations of structure in this respect. Seven species have been described.

1. *Diploharpus exstriatus*.

Diploharpus exstriatus, Bates, Proc. Zool. Soc. 1878, p. 601¹.

"Oblongo-ovatus, supra lævissimus æneo-reducens, subiridescens; partibus oris, antennis pedibusque fulvis;

mandibulis longissimis, rectis; thorace ovato, marginibus postice explanato-elevatis, angulis posticis rotundatis; elytris absque striis, marginali excepta.

"Long. $3\frac{3}{4}$ lin."

Hab. NICARAGUA, Chontales (*Belt*)¹.

Var. Thorace antice paullulum latiore elytrisque obsolete punctulato-striatis.

Hab. PANAMA, Bugaba (*Champion*).

Agrees with the type species *D. lævissimus*, from South Brazil, in being destitute of all trace of striæ, except the eighth and ninth, which lie in a broad marginal groove with a convex interstice interrupted by the usual large marginal punctures.

The variety has the same form of thorax, with the exception that it is a little broader anteriorly. Having only a single specimen each of variety and type form, it is impossible to decide whether these differences are specific or not.

2. *Diploharpus mexicanus*.

Drimostoma mexicanum, Chevrolat, Mag. Zool. 1841, pl. 64¹.

Hab. MEXICO¹, Cordova (*Sallé*), Jalapa, Oaxaca (*Höge*).

Besides the eighth and ninth striæ this species has a rudiment near the apex of the seventh, strongly incised, abruptly terminated anteriorly, and separated from the eighth by a narrow convex interstice.

3. *Diploharpus perpolutus*. (Tab. VI. fig. 1.)

D. striolato simillimus, sed differt thoracis angulis posticis haud productis. Inter minores, subæneo-niger politissimus, palpis, antennis pedibusque melleo-fulvis; mandibulis modice elongatis, apice magis falcatis; thorace transversim subcordato-quadrato, postice modice angustato, lateribus ante angulos posticos subrectos perparum sinuatis, margine postico late explanato sed minime reflexo; elytris subopalescentibus, striis 3 vel 4 interioribus plus minusve adumbratis, striola septima apicali profunda.

Long. $2\frac{1}{4}$ lin.

Hab. GUATEMALA, El Tumbador, Las Mercedes (*Champion*).

MIZOTRECHUS.

Mizotrechus, Bates, Ent. Monthly Mag. viii. p. 199 (1872), partim.

Restricted to the typical species (to which the above-cited generic diagnosis only applies), this genus is distinguished from *Diploharpus* and *Perigona* by its elongated parallelogrammatical form of body, short, thickened tarsi, and fully-developed elytral striæ. The elytra at the apex are obtusely rounded, or obliquely but obtusely truncated, the eighth and ninth striæ lying, as in the rest of the subfamily, in a marginal groove which continues to the sutural angle.

1. *Mizotrechus novemstriatus*. (Tab. VI. fig. 2.)

Mizotrechus novemstriatus, Bates, Ent. Monthl. Mag. viii. p. 199¹.

Hab. NICARAGUA, Chontales (*Janson*).—SOUTH AMERICA, Amazons¹.

PERIGONA.

Perigona, Castelnau, Études Entom. p. 151 (1835); Putzeys, Ann. Museo Civico di Genova, iv. p. 218 (1873).

Nestra, Motschulsky, Bull. Mosc. 1851, iv. p. 506; Études Entom. viii. p. 37 (1859).

Spathinus, Nietner, Ann. & Mag. Nat. Hist. ser. 3, ii. p. 428 (1858).

Siltopia, Castelnau, Trans. R. Soc. Victoria, viii. pt. ii. p. 127.

About twenty species of this much-misunderstood genus have been described. It is very widely distributed, being found in the tropical zones of America and Asia (including the Malay Archipelago and Japan), in Africa, Australia, and Madagascar. If the genus *Trechicus*, Leconte, is really synonymous, North America must be added to its range; but, according to Dr. Horn's recent observations, the mentum in *Trechicus* is without tooth in its emargination, as stated by Dr. Leconte, the original describer; and it is therefore doubtful if the North-American species can be admitted into the genus, all the species of which hitherto examined having a prominent tooth to the mentum.

M. Putzeys states that the male tarsi have four joints "sqammuleux" beneath. If this were really the case, the genus would be better placed in the group Quadripalmati than in the same group as the Anchomeninæ; but I doubt the accuracy of this observation. In the larger species (e. g. *P. lævilateris*) the squamæ exist most certainly only on three of the joints.

1. *Perigona lævigata*. (Tab. VI. fig. 4.)

Mizotrechus lævigatus, Bates, Ent. Monthl. Mag. viii. p. 200 (1872)¹.

Hab. MEXICO, Vera Cruz¹, Cordova (*Sallé*), Tehuacan, Oaxaca (*Höge*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, near the capital, Cerro Zunil, San Juan, Zapote, Las Mercedes (*Champion*); NICARAGUA, Granada (*Sallé*), Chontales (*Janson*); PANAMA, Volcan de Chiriqui, 2000–3000 feet (*Champion*).

Distinguished by its subquadrate (slightly narrowed behind), smooth and flat prothorax, with obtuse hind angles.

2. *Perigona cordicollis*.

P. lævigata similis, sed paullo convexior, thorace angustiore, postice multo magis angustato, basi supra depresso, foveis basalibus profundis. Castaneo-rufa, capite nigro, elytris (sutura excepta) fuscis lævibus, palpis, antennis pedibusque testaceo-fulvis.

Long. $1\frac{3}{4}$ –2 lin.

Hab. GUATEMALA, Capetillo, Cahabon, Panzos, Cerro Zunil, San Gerónimo (*Champion*); NICARAGUA, Granada (*Sallé*).

Subdivision E. *Bipalmati*.

Under this head I here combine the two groups *Bipalmati* and *Subulpalpi* of the "Geodephagous Coleoptera of Japan," thus reverting to the classification of Erichson in the 'Käfer der Mark Brandenburg.' The numerous connecting links between *Trechus* on the one hand and *Tachys* and *Bembidium* on the other show, in fact, the close relationship between them. The genus *Ochthozetus*, of the subfamily Pogoninæ, connects, in another direction, the Bembidiinæ, through the genus *Bracteon* (Bedel), with *Pogonus* and *Patrobus*. The subdivision is exceedingly numerous in species; in all, the males have two joints only of the anterior tarsi furnished with ragged squamæ beneath.

Subfam. *TRECHINÆ*.

TRECHUS.

Trechus, Clairville, Entom. Helvetica, ii. p. 22 (1806).

A well-marked genus of small Carabidæ of wide distribution. With the exception of the lowlands in the equatorial zone, it seems to be cosmopolitan in its range, occurring in oceanic islands as well as on continents, and spreading into high latitudes both north and south. Nearly 200 species have been described, mostly from the cooler temperate zone and in mountain-ranges.

1. *Trechus mexicanus*.

Trechus mexicanus, Putzeys, Stett. ent. Zeit. 1870, p. 33.

Hab. MEXICO, Orizaba, Puebla (*Sallé*), Oaxaca (*Höge*); GUATEMALA, Totonicapam (*Champion*).

2. *Trechus coarctatus*. (Tab. VI. fig. 3.)

T. mexicano affinis, sed major, thorace postice valde constricto elytris que fere exstriatis. Elongatus, niger, politus, palpis, antennis et pedibus castaneo-rufis; capite latiusculo, oculis sat prominentibus, vertice postice depresso; thorace subelongato-cordato, prope basin valde constricto, angulis posticis rectis, subproductis, foveis utrinque profundis duabus, altera majore prope angulum, altera minore sublineari prope lineam dorsalem; elytris oblongo-ovatis, humeris sat late rotundatis, dorso prope suturam depresso, stria suturali (prope apicem) et marginali solum perspicuis, striola recurrente distincta, punctis setiferis magnis utrinque tribus, prima ut in *T. mexicano* versus humerum.

Long. 3 lin. ($6\frac{1}{2}$ millim.).

Hab. MEXICO, Oaxaca (*Höge*).

Belongs to the same group as *T. mexicanus*, but differs conspicuously by the greatly narrowed base of the thorax and the obliteration of the elytral striæ, there remaining scarcely any traces except of the sutural one (towards the apex) and the eighth, the ninth being indistinct, though indicated towards the apex, near which the interstice is interrupted, forming one or more oblong tubercles, more distinct than in *T. mexicanus*.

Putzeys gives the size of *T. mexicanus* as $5\frac{1}{2}$ millim. None of the specimens before me exceed 5 millim.; and the Guatemalan examples are all much smaller, only reaching 4 millim.

3. *Trechus panamensis*.

Trechus panamensis, Putzeys, Stett. ent. Zeit. 1870, p. 172¹.

Hab. Panama¹.

4. *Trechus rostratus*.

Cnides rostratus, Motschulsky, Etudes Entom. xi. p. 38¹.

Trechus rostratus, Putzeys, Stett. ent. Zeit. 1870, p. 189².

Hab. PANAMA¹.—SOUTH AMERICA, Venezuela².

Subfam. BEMBIDIINÆ.

TACHYTA.

Tachyta, Kirby, Faun. Bor.-Amer. iv. p. 56 (1837).

Tachymenis, Motschulsky, Etudes Entom. 1862, p. 27.

Fourteen species of this genus have been described; but many more doubtless exist. They are all minute insects of flattened form, living under the bark of trees; and they occur in widely different regions, tropical as well as subarctic, in both hemispheres.

1. *Tachyta nana*.

Bembidium nanum, Gyllenhal, Ins. Suecica, ii. p. 30; Dej. Sp. Gén. Col. v. p. 51¹.

Carabus quadristriatus, Illig. Käf. Preuss. p. 188.

Elaphrus minimus, Duftschm. Fauna Austriaca, ii. p. 205.

Bembidium inornatum, Say, Trans. Amer. Phil. Soc. ii. p. 87².

Tachyta picipes, Kirby, Faun. Bor.-Amer. iv. p. 56, t. 8. f. 6.

Tachys rivularis, Mannerheim, Bull. Mosc. iii. p. 152³.

Hab. NORTH AMERICA^{2 3}.—MEXICO, Jalapa (*Höge*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, Balheu, San Gerónimo, Purula, Zumpango, 6000 feet.—EUROPE; ASIA, Siberia, Asia Minor.

2. *Tachyta autumnalis*.

T. flavicaudæ (Say) proxime affinis, sed paullo major elytris que minus profunde striatis. Oblonga, sat depressa, piceo-fusca, antennis, palpis, pedibus, labro epistomateque pallidis; margine laterali thoracis æqualiter late explanato-reflexo, pallido; elytris plerumque apice vix pallidioribus, rarius tertia parte apicali pallida vel totis pallidis macula communi discoidali fusca.

Long. 2 millim.

Hab. MEXICO, Vera Cruz, Cordova (*Sallé*), Oaxaca (*Höge*); GUATEMALA, near the city
BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, October 1882. tt

Zapote, Capetillo, Cubilguitz, El Jicaro, Senahu, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Janson*).

I have adopted the MS. name given to this species by Chaudoir, in the Sallé collection. It is doubtful, however, whether it can be retained as specifically distinct from *T. flavicauda*. *T. marginicollis* (Mots.), from New Orleans, is also a doubtful form, coming nearer *T. autumnalis* than *T. flavicauda*.

3. *Tachyta cucujoides*. (Tab. VI. fig. 7.)

T. parallela proxime affinis, quoad formam latam, oblongam, depressam simillima, sed differt statura relative longiore. Supra rufa (vertice interdum infuscata), elytris parallelis, apice lato obtuso, rotundatis, nigro-fuscis, tertia parte apicali, antennis, palpis pedibusque flavo-testaceis; thorace lato, quam elytra vix angustiore, lateribus antice late rotundatis, basi transversim sulcato, juxta angulos rectos posticos carinulato, margine explanato-reflexo; elytris vage striatis, striola recurrente submarginali.

Long. $2\frac{1}{4}$ millim.

Hab. BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, Cubilguitz (*Champion*).

Agrees with *T. autumnalis* and *T. flavicauda* in the explanated and reflexed lateral margins of the thorax, separated from the dorsal surface from base to apex by a groove-like depression; but differs in the greater relative width of the thorax, and consequently the more regularly oblong form of the whole body. In this respect it resembles *T. parallela*, belonging also to the same small group; but the latter species is much shorter and relatively broader.

TACHYS.

Tachys, Leconte, Ann. Lyc. N. York, v. p. 192 (1851); Schaum, Naturgesch. Ins. Deutschl. i. p. 743 (2^{te} Gruppe = *Tachyta* excl.), 1860.

Tachylopha, *Tachyura*, *Polyderis*, Motschulsky, Etudes Entom. 11^{me} année, 1862, p. 27.

A genus of minute Carabidæ, having similarly to the *Trechis* a world-wide distribution, but more abundantly represented in the tropics than the latter. About 180 species have been described.

§ 1. *Elytra utrinque punctis duobus, altero ante medium altero subapicali juxta striæ recurvæ apicem sito.*

1. *Tachys diploharpinus*. (Tab. VI. fig. 11.)

Tachys diploharpinus, Bates, Proc. Zool. Soc. 1878, p. 602¹.

“Oblongus, modice convexus [nigro- vel rufo-castaneus], sericeo-nitens, subopalescens; partibus oris, antennis pedibusque fulvis; mandibulis acuto hamatis; oculis prominulis; foveis frontalibus fortiter impressis, post oculos curvatis; thorace lato, postice modice sinuato-angustato, angulis posticis exstantibus acutis, margine laterali elevato-explanato; elytris lævibus, stria suturali solum fortiter impressa, striola apicali recurva fortiter impressa, ad apicem setifera, foveis irregularibus duabus submarginalibus, puncto discoidali mediano.

“Long. $1\frac{1}{2}$ lin.”

Hab. GUATEMALA, San Joaquin (*Champion*); NICARAGUA, Chontales (*Janson*)¹.

2. *Tachys coruscus*.

Tachys coruscus, Leconte, Ann. Lyc. N. York, iv. p. 472 (1848)¹.

Hab. NORTH AMERICA¹.—MEXICO, Cordova (*Sallé*), Vera Cruz (*Höge*); GUATEMALA, near the city, Aceytuno, San Gerónimo (*Champion*).

Mexican and Guatemalan specimens agree closely with an example from Kern Co., California, collected by Morrison. They belong to the pale form of the species, with opalescent lustre on the elytra, strongest on a vaguely limited dusky patch about the middle.

3. *Tachys castaneicolor*.

T. corusco affinis; differt thorace latiore postice multo minus angustato, coloreque supra toto castaneo-fusco. Oblongo-ovatus, castaneus (elytris subopalescentibus), antennis, palpis pedibusque pallide fulvis; foveis frontalibus latis (interspatio frontali sat angusto et convexo); thorace transverso, lato, convexo, lateribus valde arcuatis, postice paullo angustato, angulis posticis obtusis sed distinctis, foveis basalibus latis, sulculoque basali acute insculpto, flexuoso; elytris quam in *T. corusco* minus depressis, striis 3-4 interioribus vage impressis sed certo situ conspicuis, striola recurva conspicua curvata.

Long. $1\frac{1}{6}$ lin.

Hab. GUATEMALA, near the city (*Champion*).

4. *Tachys chiriquinus*.

T. castaneicolori quam maxime affinis, sed differt corpore latiore magis ovato, antennisque paullo crassioribus. Latius oblongo-ovatus, castaneo-fuscus, minus depressus, subiridescens, antennis, partibus oris pedibusque pallide fulvis; foveis frontalibus latis (interspatio frontali sat angusto et convexo); thorace transverso, postice paullo angustato, angulis posticis paullo obtusis sed distinctis, elevatis, margine laterali (præcipue postice) sat explanato-reflexo; elytris latius ovatis, striis duabus suturalibus fortiter impressis, 3^a indistincta, lateribus lævissimis, striola recurva elongata apice valde incurvata.

Long. $1\frac{1}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 3000 feet (*Champion*).

Extremely near *T. castaneicolor*, and scarcely differing either in colour or sculpture. In form of body, however, it is so conspicuously broader, more oval, and larger, that, added to the perceptibly thicker antennæ and strongly impressed first and second elytral striæ, I think it must be held to be a distinct species.

5. *Tachys vittiger*.

Tachys vittiger, Leconte, Ann. Lyc. N. York, v. p. 193 (1851)¹.

Hab. NORTH AMERICA, California¹.—GUATEMALA, Champerico (*Champion*).

6. *Tachys lymnæoides*.

Elongatus, subparallelus, depressus, olivaceo-æneus parum nitidus; antennis, palpis et femoribus piceis, tibiis et tarsis melleo-flavis; thorace cordato-quadrato parum transverso, ante angulos posticos subrectos sub-sinuato, sulculo basali subrecto, foveis obsoletis; elytris striis interioribus 3-4 vix impressis, suturali tantum prope apicem acute insculpta, striola recurva tenuissima et acutissima valde curvata.

Long. $\frac{5}{6}$ lin.

Hab. GUATEMALA, Champerico (*Champion*).

7. *Tachys lugubris*.

Tachys lugubris, Motschulsky, Etud. Entom. 1855, p. 13; 1862, p. 30¹.

Hab. PANAMA¹.

According to the description, this species must be closely allied to *T. castaneicolor*.

8. *Tachys tantillus*.

Tachys tantilla, Motschulsky, Etud. Entom. 1862, p. 30¹.

Hab. PANAMA, Obispo¹.

Probably near our *T. curvans*, but quite distinct, if the description is accurate, in the elytra having only one stria on each side of the suture.

9. *Tachys æquinoctialis*.

Tachys æquinoctialis, Motschulsky, Etud. Entom. 1855, p. 13.

Polyderis æquinoctialis, Motschulsky, *ibid.* 1862, p. 33¹.

Hab. PANAMA¹.

The description fits in many respects our *T. chiriquinus*; but the carina at the hind angles of the thorax, "angulis posticis obtusis subcarinatis," is decisive of its not being that species. The carina near the hind angles is a character which occurs in the genera *Xystosomus* and *Tachyta*, but not in *Tachys*. Motschulsky does not say that the carina is "near;" if it were so, it would be in support of the generic separation of *Polyderis* from *Tachys*.

10. *Tachys flavicollis*.

Tachys flavicollis, Motschulsky, Etud. Entom. 1855, p. 13; 1862, p. 29¹.

Hab. PANAMA¹, David (*Champion*).

Motschulsky's description applies very well to a species taken, as above stated, by Mr. Champion. The species is rather vividly coloured, the head and elytra being chestnut-brown or black, shining without silky lustre, and the thorax yellowish red; the antennæ yellow, with joints 3-6 fuscous or blackish.

11. *Tachys pulchellus*.

Tachys pulchellus, Laferté, Rev. Zool. 1841, p. 45¹; Chaudoir, Rev. et Mag. Zool. 1868, p. 22².

Hab. NORTH AMERICA, Texas (?)¹.—MEXICO, Yucatan².

§ 2. *Elytra punctis duobus discoidalibus, altero ante altero post medium; striola recurva minime incurvata.* (Barytachys, Chaud.)

12. *Tachys nebulosus*.

Tachys nebulosus, Chaudoir, Rev. et Mag. Zool. 1868, p. 24¹.

Tachys incurvus, Leconte, Ann. Lyc. N. York, iv. p. 469 (nec *Bembidium incurvum*, Say)².

Hab. NORTH AMERICA^{1 2}.—MEXICO, Cordova, Toxpan (*Sallé*); GUATEMALA, near the city (*Champion*).

I can detect no difference between Central-American specimens and others from Pennsylvania and Texas. The species resembles the ferruginous variety of *T. cruciatus*, but differs in being smaller and wanting the frontal foveole. From the true *T. incurvus* (Say) it is distinguished, as pointed out by Chaudoir, *inter alia*, by the three distinct punctures in the middle of the basal groove of the thorax.

13. *Tachys cruciatus*.

Tachys cruciatus, Chaudoir, Rev. et Mag. Zool. 1868, p. 24, nota¹.

Hab. MEXICO, Bobo, Jalapa, Vera Cruz (*Höge*), Cordova, Tuxtla (*Sallé*), Guanajuato (*Dugès, coll. Sallé*); GUATEMALA (*Sallé*), near the city, Dueñas, San Gerónimo, Rio Maria Linda (*Champion*); PANAMA¹.

Varies much in colour and markings. The typical form described by Chaudoir has glossy blackish-brown elytra, with two large red spots on each. The varieties are:—1, blackish brown, with faint traces of red spots; 2, red spots united; 3, ground-colour pale ferruginous, the red spots indicated by paler colour with ill-defined limit. In all its colour-varieties the species may be distinguished from its allies by the conspicuous single puncture in the middle of the forehead.

14. *Tachys obtusellus*.

T. cruciatus et *incurvus* proxime affinis. Fuscus vel rufescens, politissimus; elytris subcyaneis unistriatis utrinque maculis duabus magnis fulvis; antennis, palpis et pedibus pallide fulvis, fronte impunctata; thorace fere sicut in *T. cruciatus*, sed conspicue longiore, quadrato, antice paullulum rotundato dilatato, postice modice subrecte angustato, angulis posticis distinctis sed haud extantibus, carinula juxta angulum minime elevata obtusa, sulco basali crenato, puncto magno unico mediano.

Long. $1\frac{1}{4}$ lin.

Hab. MEXICO, Vera Cruz (*Sallé, Höge*), Bobo (*Höge*).

15. *Tachys mundulus*.

T. cruciatus et *obtusello* similis, sed elytris latius ovatis thoraceque relative angustiore et magis cordato. Castaneo-fuscus, politus; antennis fuscescentibus, basi tantum rufis, pedibus testaceo-rufis; elytris unistriatis, utrinque maculis duabus magnis rufis; fronte impunctata; thorace late cordato, basin versus sinuato-angustato, angulis posticis acutis, basi media tripunctata sed puncto mediano solum discreto, cæteris minoribus in sulco basali impresso, foveis latis, impunctatis, carinula utrinque acuta sat elongata, obliqua.

Var. 1, elytris maculis anterioribus obsoletis; 2, totis nigris.

Long. $1\frac{1}{2}$ lin.

Hab. MEXICO, Cordova (*Sallé*), Jalapa, Vera Cruz (*Höge*); GUATEMALA, near the city, San Joaquin, Tamahu (*Champion*).

16. *Tachys pericallis*. (Tab. VI. fig. 10.)

T. mundulo affinis; thorace similiter relative angusto, sed corpore multo minus convexo elytrisque amplius ovatis. Fuscus vel ferrugineo-fuscus, opalescenti-nitidus; elytris utrinque maculis magnis transversis

rufis, striam suturalem attingentibus; antennis fuscis, articulis basalibus, palpis pedibusque flavo-testaceis; fronte impunctata; thorace quam elytra fere dimidio angustiore, cordato, postice valde sinuatim angustato, angulis posticis exstantibus acutissimis, carinula juxta angulum acute elevata, sulculo basali punctato, medio punctis tribus majoribus magisque discretis; elytris latius ovatis, parum convexis, minus politis, humeris minus oblique rotundatis, stria suturali solum impressa.

Long. $1\frac{1}{2}$ – $1\frac{2}{3}$ lin.

Hab. GUATEMALA, Rio Naranjo (*Champion*).

17. *Tachys microspilus*.

T. mundulo proxime affinis, differt statura minore; thorace latius transverso, foveis majoribus et profundioribus, punctisque basalibus tribus discretis. Modice convexus, castaneo-fuscus; antennis basi, palpis pedibusque flavis; elytris utrinque maculis duabus parvis (apiceque) fulvis; fronte impunctata; thorace transverso, postice vix angustato, lateribus postice valde sinuatis, angulis exstantibus acutis, carina supra angulum elongata acuta, fovea lata et profunda, sulco punctato punctisque tribus medianis distinctis; elytris minus late ovatis, modice convexis, stria suturali solum impressa.

Long. $1\frac{1}{8}$ lin.

Hab. GUATEMALA, San Gerónimo (*Champion*); NICARAGUA, Granada (*Sallé*).

18. *Tachys purgatus*.

T. microspilo quoad formam simillimus, sed differt colore nigro, elytris utrinque bistriatis maculaque unica parva posteriore (interdum deficiente). Modice convexus, niger leviter ænescens; palpis, antennis (basi rufa excepta) fuscis, pedibus flavis; fronte impunctata; thorace transverso, postice paullulum angustato, lateribus sat sinuatis angulis acutis, basi media tripunctata, foveis latis profundis, carinula acuta; elytris utrinque stria secunda sat conspicue impressa, macula fulva posteriore transversa.

Long. $1\frac{1}{8}$ lin.

Hab. MEXICO, Puebla (*Sallé*), Jalapa (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

19. *Tachys amplicollis*.

Minutus, convexus, testaceo-rufus, palpis pedibusque pallidioribus; thorace valde transverso, antice late rotundato, postice sat angustato, lateribus ante angulos posticos subacutos leviter sinuatis, sulculo basali profundo, punctato; foveis sat profundis; elytris breviter ovatis, postice obtusis, bistriatis, stria suturali conspicue punctata, stria 2^a obsolete punctulata.

Long. $\frac{2}{3}$ lin.

Hab. MEXICO, Teapa (*Sallé*), Jalapa (*Höge*); GUATEMALA, near the city, Zapote, Champerico, San Joaquin (*Champion*); NICARAGUA, Granada (*Sallé*).

The only described species known to me which resembles this species is *T. platyderus* (Bates), from the Amazons, which differs only in being decidedly larger, and in the elytra having two deeply impressed striæ on each side of the suture. I do not recognize the species in any of the descriptions of North-American *Tachys* by Leconte. The width of the thorax is about equal to twice the length. The insect, together with the following, has some resemblance to *T. globulus*, Dej., but they are much less convex.

20. *Tachys jansoni*.

T. amplicolli quam maxime affinis, differt tantum thorace paullo minus dilatato, elytrisque utrinque tristriatis, striis punctulatis.

Long. $\frac{2}{3}$ lin.

Hab. NICARAGUA, Chontales (*Janson*).

Resembles *T. squiresi* from South Brazil, in which, however, the three striæ on each elytron are much more strongly punctured, and are followed by traces of a fourth similar stria.

21. *Tachys rufulus*.

Tachys rufula, Motschulsky, Etud. Entom. 1855, p. 13.

Tachyura rufula, Motschulsky, ibid. 1862, p. 28¹.

Hab. PANAMA, Obispo¹.

22. *Tachys curvans*.

Parvus, subdepressus, angustus, flavo-testaceus; antennis parum elongatis; capite ut in *T. corusco* et affinibus; thorace transverso, postice (modice sinuatim) angustato, angulis posticis obtusis sed apice acuto, sulculo basali profundo angulum apud lineam dorsalem formante; elytris parum ovatis, striis interioribus quatuor distincte impressis, 2^a et 3^a versus apicem extus curvatis ibique interstitiis latis, striis exterioribus punctulatis haud impressis.

Long. $\frac{2}{3}$ lin.

Hab. GUATEMALA, San Gerónimo, Panzos, Rio Naranjo (*Champion*).

The apical recurved striole is not clearly distinguishable from the striæ, except under a high power of the microscope, the second and third striæ being much more strongly impressed than in the allied species, curved outward towards the apex, and approaching within a short distance of the striole. The species is of the flattened form of the members of δ 1; but it belongs to this section from the discoidal position of both the elytral punctures.

A species very closely resembling this, but having a rather narrower and more cordate thorax, has been sent to me from California as *Tachys*, n. sp., by Mr. H. K. Morrison.

The position of the following species is uncertain.

23. *Tachys minusculus*.

Tachys minusculus, Motschulsky, Etud. Ent. 1862, p. 36¹.

Hab. PANAMA, Obispo¹.

The author says, "Elytres tout-à-fait sans stries." I have seen no species answering to this description.

24. *Tachys cribellatus*.

Sat late oblongus, modice convexus, ferrugineo-rufus, nitidus, pedibus pallidioribus; elytris vitta lata communi nigra, paulo ante apicem terminante; antennis breviusculis, infuscatis, basi pallidis; thorace brevi et lato,

antice valde rotundato-dilatato, prope basin sinuatim angustato, margine tenuissimo, sulco basali punctulato, carinula prope angulum sat elevata; elytris utrinque quinquestriatis, striis usque ultra medium subgrosse punctatis, suturali solum ad apicem extensa, 2^a-4^m multo abbreviatis, 5^a brevissima.

Long. $\frac{5}{8}$ lin.

Hab. MEXICO (*Sallé*); GUATEMALA, San Gerónimo (*Champion*).

MIOPTACHYS.

Genus *Trecho* prima facie simillimum. Corpus glabrum. Caput ovatum; oculi parvi, minime prominentes. Frons lævis, foveis curtis parum impressis distantibus. Palpi articulo subulato sat elongato. Antennæ robustæ, moniliformes, articulis 4^o-10^m rotundatis. Thorax quadratus, marginibus lateralibus æqualiter explanatis intus sulculo a dorso separatis, sulculo intus versus basin acute carinato-marginato. Elytra ovata, basi angusta (margine basali arcuato), humeris leniter rotundis, apice late obtusa, striis (suturali postice excepta) vix impressis, striola recurva recta elongata submarginali, puncto setifero dorsali unico longe post medium sito. Tibiæ anteriores apice extus oblique truncatæ.

An interesting genus, partly bridging over the difference between *Tachys* and the blind genera *Anillus* and *Scotodipnus*. It differs from the latter, besides the presence of eyes, in the glabrous surface of the body and the long terminal joint of the palpi. It is possible Motschulsky may have described one of the species as a *Polyderis*; but his typical species of *Polyderis* are true *Tachyes*, and his definition of the group, "côtés du corselet rebordés seulement en arrière," quite excludes the *Mioptachys* here described.

1. *Mioptachys trechoides*. (Tab. VI. fig. 6.)

Oblongo-ovatus, subdepressus, rufo-testaceus, antennis, palpis pedibusque pallidioribus; capite post oculos parum angustato; thorace quadrato, postice paullulum sinuato-angustato, angulis posticis deflexis acutis, posticis exstantibus acutissimis, carina postico-laterali elongata acuta; elytris obsolete striatis, stria suturali postice acutius insculpta.

Long. 1 lin.

Hab. GUATEMALA, Totonicapam (*Champion*).

2. *Mioptachys oopteroides*.

Latius ovatus magisque convexus, castaneo-rufus vel fuscus, antennis, partibus oris pedibusque fulvo-testaceis; thorace brevior, subtransversim quadrato, post medium modice (subsiniatim) angustato, angulis rectis, carina postico-laterali minus acute elevata; elytris late ovatis, utrinque striis tribus sat conspicuis, suturali postice solum profunde insculpta.

Long. $\frac{3}{4}$ lin.

Hab. GUATEMALA, Totonicapam (*Champion*).

3. ? *Mioptachys breviusculus*.

Polyderis breviuscula, Motschulsky, Etud. Entom. 1862, p. 34.

Hab. PANAMA.

Judging from the character given by the author, "oculis minutis, vix prominulis," I conclude this species belongs to the present genus. It certainly does not belong to *Polyderis*, according to the author's own definition, the typical species of that group not differing from *Tachys* proper.

ANILLUS.

Anillus, Jacquelin Duval, Ann. Soc. Ent. Fr. 1851, Bull. p. 72.

A genus of minute blind beetles, allied to *Tachys*, hitherto found only in the Mediterranean region and in North America. Ten species have been described. The following differs from the typical forms, and also from the allied genera *Scotodipnus* and *Illaphanus* in its convex surface, and in the elytra being rounded, not subtruncated at the apex. By the absence of striæ or distinct rows of punctures, and by the scarcely perceptible terminal joint of the palpi, it agrees better with *Scotodipnus* than with *Anillus*; but in the former of these two genera the elytra are much abbreviated, which is not at all the case with our species.

1. *Anillus integripennis*. (Tab. VI. fig. 5.)

Minutus, oblongus, subconvexus, breviter setosus, flavo-testaceus, subnitidus; foveis frontalibus elongatis, sat profundis, interspatio subangusto convexo; antennis robustis, moniliformibus, versus apicem subincrassatis; thorace quadrato, postice parum angustato, angulis posticis rectis, basi depressa transversim sulcata; elytris oblongis, apice subabrupte declivibus, subtilissime punctulatis, striis nullis, in loco striolæ recurvæ punctis magnis tribus.

Long. $\frac{2}{3}$ lin.

Hab. GUATEMALA, Totonicapam (*Champion*).

PERICOMPSUS.

Pericompsus, Leconte, Ann. Lyc. N. York, v. p. 191 (1852); Schaum, Berl. ent. Zeitschr. 1860, p. 201.

Eighteen species of this genus have been described, all American, and ranging through temperate as well as tropical latitudes, north and south. A closely allied undescribed genus occurs in Australia, of which *Tachys australis*, Schaum, is the type, differing from *Pericompsus* only in the eighth and ninth elytral striæ being separated and not sunk together in a marginal groove.

1. *Pericompsus ehippiatus*.

Bembidium ehippiatum, Say, Trans. Amer. Phil. Soc. iv. 1834, p. 439¹.

Pericompsus ehippiatus, Leconte, Ann. Lyc. N. York, 1852, p. 191.

Hab. NORTH AMERICA¹.—GUATEMALA, San Gerónimo (*Champion*).

2. *Pericompsus jucundus*.

Pericompsus jucundus, Schaum, Berl. ent. Zeitschr. 1860, p. 202¹.

Hab. MEXICO, Tuxtla (*Sallé*), Vera Cruz (*Sallé*, Höge); GUATEMALA, Izabal (*Sallé*), Champerico (*Champion*).—SOUTH AMERICA, Venezuela¹.

A Guatemalan specimen in the Sallé collection is referred to this species. All the examples I have examined agree with Schaum's description as far as it goes.

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, October 1882.

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3. *Pericompsus longulus*. (Tab. VI. fig. 9.)

Pericompsus longulus, Bates, Proc. Zool. Soc. 1878, p. 601¹.

"Elongatus, parallelogrammicus, castaneo-piceus, capite marginibusque thoracis rufis; elytris fulvo-testaceis, plaga mediana oblonga communi (postice usque ad marginem dilatata) nigro-picea; partibus oris, antennis pedibusque pallidis; thorace transverso, postice fortiter sinuatim angustato, angulis posticis rectis, marginibus paullo explanato-reflexis.

"Long. 1 lin." [1-1 $\frac{1}{4}$ lin.].

Hab. MEXICO, near the capital (*Flohr*¹), Guanajuato (*Dugès, coll. Sallé*); GUATEMALA, near the city, San Gerónimo (*Champion*).

Guatemala examples are conspicuously less elongated than those from Mexico, but do not offer any other difference. The species may be distinguished from the darkest examples of *P. ehippiatus* by its broader thorax and by the exterior elytral striæ (striæ 4-6) nearly reaching the apex.

4. *Pericompsus sticticus*.

Elongato-oblongus, subdepressus, olivaceo-æneus, nitidus, antennis basi (cæteris fuscis), pedibus, maculis elytrorum utrinque duabus (prima oblonga, basin versus inter striam 6^m et marginem, secunda brevior apicem versus inter striam 3^m et 8^m) flavo-testaceis; capite lato, oculis maximis; thorace late cordato, postice sinuatim (modice) angustato, angulis acutis, margine laterali subtilissimo, sulco basali multi-striolato, carinula prope angulum obliqua sat elevata; elytris punctato-striatis, striis 3^a-6^m apice sat abbreviatis.

Long. 1 lin.

Hab. GUATEMALA, Panzos, Paso Antonio (*Champion*).

XYSTOSOMUS.

Xystosomus, Schaum, Berl. ent. Zeitschr. 1863, p. 89.

Of this distinct and very remarkable genus ten species have been described. It is peculiar, as far as at present known, to Tropical America.

1. *Xystosomus sublævis*.

Late ovatus, convexus, olivaceo-æneus, politus, antennis (apice subinfuscatis) pedibusque fulvo-testaceis; oculis maximis; foveis frontilibus medio subinterruptis extus carinulatis; thorace semiovali, a basi usque ad apicem arcuatim angustato, angulis posticis acutis (nullomodo exstantibus) carina elongata acuta ad marginem fere parallela, fovea basali utrinque lata; elytris striis omnibus minime impressis punctulatis, 8^a et 9^a magis distinctis, suturali (apice excepto) obsoleta.

Long. 1 $\frac{1}{2}$ -1 $\frac{2}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 4000 feet (*Champion*).

2. *Xystosomus sulcicostis*.

X. sublævi proxime affinis, differt solum striis 5^a-8^m profunde insculptis, 1^a-4^m minime impressis vel omnino obsoletis, dorso lævi; magis convexus, lætius æneo-olivaceo coloratus.

Long. 1 $\frac{1}{2}$ -1 $\frac{2}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 4000 feet (*Champion*).

3. *Xystosomus belti*. (Tab. VI. fig. 8.)

Xystosomus belti, Bates, Proc. Zool. Soc. 1878, p. 601¹.

Xystosomus olivaceus, Bates, loc. cit. p. 601².

“Elongato-ovatus, modice convexus, politus, viridi-æneus, elytris aureo tinctis; antennis fulvis, pedibus rufo-piceis, corpore subtus piceo; foveis frontalibus longis, ab sulculo oculari utrinque carina separatis; oculis maximis; thorace transverso, antice prope angulos fortiter rotundato-angustato, postice haud angustato, angulis posticis rectis; elytris striis punctulatis novem, 1^a-3^m vix impressis (1^a versus apicem excepta), 4^a-7^m apice evanescentibus.”

Long. $1\frac{3}{4}$ - $2\frac{1}{4}$ lin.

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Belt*^{1 2}, *Janson*); PANAMA, Volcan de Chiriqui, 2000 to 4000 feet, Bugaba (*Champion*).

The sculpture of the elytra varies a little in depth. Mexican and Guatemalan specimens have the striæ most faintly impressed; those from Chiriqui have mostly deep striæ with convex interstices, the interior striæ always the feeblest. The dark colour in the legs is most frequently (especially in Chiriqui examples) confined to the middle of the tibiæ, and then often on the fore legs only.

X. olivaceus (Bates) is evidently only a colour-aberration. I have seen but the one example described.

BEMBIDIUM.

Bembidium, Latreille, Hist. Nat. Ins. viii. p. 221.

Nearly 500 species have been described of this well-known genus. It is especially characteristic of temperate and boreal climates, being but sparingly represented in the tropics, even at high elevations; and in the river-plains of equatorial countries, as, for example, the Amazons, it is entirely absent, the allied genera *Tachys*, *Pericompsus*, and *Xystosomus*, in numerous species, there taking its place. It should be remarked, however, that the true functional representatives of the *Bembidia* in moist localities of the equatorial regions of America are the Lachnophorinæ.

1. *Bembidium sphæroderum*. (Tab. VI. fig. 12.)

Philochitho æneo subsimilis. Oblongum, subdepressum, olivaceo- vel cyaneo-nigrum, politum, antennarum articulis 3-4 basalibus pedibusque rufo-testaceis; capite lato, sulculo frontali usque ad oculi marginem posteriorem ducto; thorace valde rotundato, transverso, prope basin citius usque ad pedunculum rotundato-angustato (margine obtusissime angulato nec sinuato), anguste explanato-reflexo, basi lævi, fovea utrinque parva rotundata; elytris thorace vix latioribus, utrinque striis punctatis sex, omnibus (suturali excepta) ante apicem terminatis, area apicali politissima, stria tertia bipunctata, margine basali usque ad striam 5^m basin curvato sed a striis distante.

Var. Pedibus obscurioribus partim piceo-rufis.

Long. $1\frac{1}{2}$ lin.

Hab. MEXICO, Jalapa (*Höge*).

The dark-legged variety, of which only one example was taken by Herr Höge, is from Oaxaca.

2. *Bembidium championi*.

B. sphærodero proxime affine, differt tantum colore æneo politissimo elytrisque septemstriatis, striis vix impressis, punctatis, 7^a brevissima, 6^a ante medium, 5^a paulo post medium terminatis; femoribus supra tarsisque infuscatis.

Long. 1½ lin.

Hab. GUATEMALA, Quiche Mountains, 7000 to 9000 feet (*Champion*).

3. *Bembidium rogersi*.

Bembidium rogersi, Bates, Proc. Zool. Soc. 1878, p. 602¹.

“Gracile, convexiusculum, nigro-æneum, pedibus piceis, antennarum articulo basali subtus rufo; thorace anguste cordato, antice rotundato, postice sinuatim angustato, angulis posticis rectis, basi transversim depresso, vage punctato, foveis profundis carinaque elevata ad marginem fere parallela; elytris punctulato-striatis, interstitiis convexis paulo undulatis, tertio foveis duabus magnis vagis impresso, stria 7^a obsoleta.

“Long. 2¼ lin.”

Hab. COSTA RICA, Volcan de Irazu, 6000 to 7000 feet (*Rogers*)¹.

4. *Bembidium cognatum*.

Bembidium (Leja) cognatum, Dejean, Sp. Gén. Col. v. p. 169¹.

Hab. MEXICO (*Höpfner*¹), Puebla (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), near the capital (*Flohr*), Oaxaca, Jalapa (*Höge*); GUATEMALA, near the city, Quezaltenango (*Champion*).

Extremely near *B. flavopictum*, Motschulsky (*pictum*, Lec.), from California and Texas, and presenting the same range of variation in the pale markings of the elytra as that attributed by Leconte to the North-American species. The two species, however, differ constantly in the colour of the base of the antennæ, always black in *B. cognatum* and pale rufous in *B. flavopictum*. The thorax also differs in being narrower at the base in *B. cognatum*, with a raised but obtuse carina at each angle between the deep oval fovea and the margin.

5. *Bembidium mexicanum*. (Tab. VI. fig. 13.)

Bembidium (Peryphus) mexicanum, Dej. Sp. Gén. Col. v. p. 126¹.

Hab. MEXICO, Cordova (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), near the capital (*Flohr*), Alvarez Mountains (*Dr. Palmer*), Jalapa, Oaxaca (*Höge*); GUATEMALA, near the city, Totonicapam (*Champion*).

Var. *sallæi* (Chaud. in coll.). Differt tantum elytris utrinque rufo-bimaculatis, macula prima humerali elongata (interdum vaga vel obsoleta), secunda subapicali plus minusve fasciiformi obliqua.

Hab. MEXICO, Puebla, Toluca, Etna (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), near the capital (*Flohr*), Oaxaca (*Höge*); BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, near the city, Totonicapam, Panajachel (*Champion*).

The typical *B. mexicanum* is, as described by Dejean, “obscure viridi-æneum” (M. Sallé’s Cordova specimens have a slight bluish-green tint), with spotless elytra.

Between this form and the four-spotted *B. sallæi* there exists every gradation in the large series I have examined from the localities above cited. The number of red basal joints of the antennæ also varies, the minimum being one, viz. the scape; the depth of the elytral striæ and strength of their punctuation also vary, being in some examples much diminished; the seventh stria, however, is always absent. In all its varieties the form of the thorax remains constant. It is cordate-quadrate, with simple basal foveæ and only slight traces of a carina or minute plica lying obliquely and joining the lateral margin a little before the angle, which latter is projecting rectangular.

A specimen from Cordova is figured.

6. *Bembidium submaculatum*.

Bembidium (Peryphus) submaculatum, Bates, Proc. Zool. Soc. 1878, p. 603¹.

“Elongato-ovatum, modice convexum, fusco-æneum, elytris utrinque versus apicem macula obliqua flavo-testacea; antennis piceis, articulo 1^o et 2^o-4^m basi pedibusque flavo-testaceis; palpis maxillaribus articulo penultimo obscuro; thorace transversim quadrato, antice modice rotundato, postice leviter sinuatim angustato, angulis posticis subrectis, fovea basali profunda vage rugosa, carinaque obliqua juxta angulum; elytris subtiliter striato-punctulatis, striis interdum magis impressis, 7^a abbreviata, exterioribus omnibus versus apicem oblitteratis, interstitio 3^o bipunctato.

“Long. 2 $\frac{1}{6}$ lin.”

Hab. MEXICO, near the capital (*Flohr*)¹, Capulalpam, Jacale (*Sallé*), Oaxaca, Jalapa (*Höge*).

Extremely near *B. mexicanum*, but differs in the seventh stria being distinct, though much abbreviated, and in some examples reduced to a row of faint punctures near the base, and in the thoracic carina being longer and more conspicuous. It is much smaller than the usual size of *B. mexicanum*.

7. *Bembidium lucidum*.

B. submaculato proxime affine, differt thorace magis rotundato, antennis rufis apice tantum subinfuscatis, elytris utrinque macula magna humerali, altera obliqua versus apicem flavo-testaceis; pedibus testaceis; elytris stria punctata 7^a magis distincta et ultra medium continuata; thorace basi plus minusve punctato.

Long. 2 $\frac{1}{3}$ lin.

Hab. NORTH AMERICA to Hudson's Bay.—MEXICO, San Antonio de Arriba (*Sallé*), Oaxaca (*Höge*).

Named *B. immaturatum* by Chaudoir in the Sallé collection. I can detect no differences between Mexican specimens and others from various parts of North America, and have received the species from Morrison (taken in Montana) under the name of *B. lucidum*.

8. *Bembidium vernale*.

B. mexicani exemplaribus cyaneo-olivaceis simile, sed multo minor, thoraceque postice magis sinuatim angustato angulisque valde exstantibus. Olivaceum, subcyaneum, antennis basi pedibusque rufo-testaceis; thorace cordato, postice sinuatim angustato, angulis posticis prominentibus acutis, foveis basalibus parvis

profundis carinulaque obliqua juxta angulum; elytris punctato-striatis, striis 6, 6^a et 5^a apud medium terminatis.

Long. $2\frac{2}{3}$ lin.

Hab. MEXICO (*Sallé*)

I have adopted the name given to this species by Chaudoir in the Sallé collection.

9. *Bembidium flohri*.

Bembidium (Notaphus) flohri, Bates, Proc. Zool. Soc. 1878, p. 602¹.

“Oblongum, parallelogrammicum, depressum, æneum nitidum, elytris pallido-testaceis, regione scutellari gutta utrinque discoidali maculaque majore postmediana transversa fuscis; palpis, antennis et pedibus fulvo-testaceis; sulcis frontalibus modice impressis simplicibus; capite lævi; thorace postice angustato, angulis posticis obtusis fere rotundatis, supra media basi strigosa, fovea utrinque vaga, lata, rugulosa, carinaque acuta oblique ad angulum posticum ducta; elytris thorace vix latioribus, integriter punctulato-striatis, interstitiis planis, tertio tripunctato.

“Long. $2-2\frac{1}{4}$ lin.”

Hab. MEXICO, near the capital (*Flohr*)¹, Oaxaca (*Höge*).

It is only by rare exception that the hind angles of the thorax are so obtuse as to justify the phrase “fere rotundatis” in the above diagnosis. Except in one example of the series examined, the angles are distinct, and on close examination prove to form a minute projection. The species resembles in colour the *Peryphus* rather than the *Notaphus* section of *Bembidium*; but the striæ are as in the latter section.

10. *Bembidium scintillans*.

Anguste oblongo-ovatum, convexiusculum, viridi-æneum, capite thoraceque lætius æneis nitidissimis, elytris lineolis plurimis, antennis basi pedibusque flavo-testaceis, geniculis infuscatis; sulcis frontalibus rectis brevibus; thorace cordato-quadrato, prope basin sinuato-angustato, angulis posticis rectis, fovea utrinque basali sat profunda lævi carinulaque acuta juxta angulum; elytris grosse punctato-striatis, striis omnibus integris prope apicem lævibus, 3^a et 4^a, 5^a et 6^a ante apicem conjunctis; interstitiis subconvexis, 3^o bipunctato, cupreo-æneis nitidis, lineolis flavis ornatis, quarum una basali apud interstitium 3^m, longissima, cæteris brevibus, quatuor ante apicem fasciam formantibus, alteris juxta apicem in maculam congestis.

Long. $2\frac{1}{3}$ lin.

Hab. MEXICO, Capulalpam (*Sallé*), Oaxaca (*Höge*).

Belongs to the *Notaphus* section of the genus, notwithstanding its comparatively narrow, subcordate, and highly polished thorax.

11. *Bembidium spretum*.

Bembidium (Notaphus) spretum, Dej. Sp. Gén. Col. v. p. 70¹.

Hab. MEXICO¹, Guanajuato (*Dugès, coll. Sallé*).

12. *Bembidium semifasciatum*.

Bembidium semifasciatum, Say, Trans. Am. Phil. Soc. iv. p. 438 (1834)

Hab. MEXICO¹, near the capital (*Flohr*).

Extremely near *B. spretum*. It seems, however, to be a distinct species, the thorax being much less contracted near the base, with the hind angles less prominent, or, as Say describes it, "sides not arquated from behind the middle to the basal angle." The elytra, too, have always a semifascia of three or four small yellow spots on a level with the first puncture, which are absent in *B. spretum*.

13. *Bembidium sparsum*.

Oblongum, vix convexum, cupreo-fuscum viridi-tinctum, capite thoraceque subtilissime alutaceis minus nitidis; antennarum articulis 1° 2°que et 3°-5^m basi pedibusque rufo-testaceis, genibus tarsorumque articulis apice infuscatis; elytris lineolis plurimis apice fulvo-testaceis; foveis frontalibus rectis parum impressis; thorace cordato-quadrato, minus lato, paullo ante medium rotundato, prope basin sinuatim angustato, angulis posticis obtusis sed distinctis, foveis sat profundis, carinula juxta angulum acuta; elytris punctato-striatis, striis omnibus passim æqualiter impressis prope apicem fere lævibus, 3° 4°que et 5° 6°que ante apicem conjunctis, interstitiis planis, 3° bipunctato.

Long. $1\frac{2}{3}$ - $2\frac{1}{4}$ lin.

Hab. MEXICO, Tuxtla (*Sallé*), Vera Cruz, Oaxaca (*Höge*); GUATEMALA, near the city, Paso Antonio, Champerico (*Champion*).

The pale lineoles of the elytra are arranged almost the same as in *B. scintillans*; but, though varying in length in different examples, none of them are so much elongated. Besides the apical spot, there are about fourteen on each elytron, viz. two small basal on the fourth and fifth interstices, two longer, following each other (a little before the middle), on the third, with five others exterior to them forming a fascia on interstices 4 to 8. Towards the apex there is a similar fascia formed of lineoles on interstices 4 to 8.

I have adopted the name given to the species by Chaudoir in the Sallé collection.

14. *Bembidium placitum*.

Bembidium (Notaphus) placitum, Bates, Proc. Zool. Soc. 1878, p. 602¹.

"Elongato-oblongum, depressum, viridi- vel subcupreo-æneum, elytris cupreo-fuscis (♂ nitidis, ♀ subopacis) vitta laterali ab humero usque medium, intus biloba, fasciaque maculari ante apicem, fulvo-testaceis; sulcis frontalibus latis, haud profundis; thorace late rotundato, postice magis quam antice angustato, angulis posticis obtusis, fovea media profunda carinaque parva juxta angulum; elytris subtiliter punctato-striatis, interstitiis planissimis, tertio 3-punctato; palpis, antennis pedibusque obscure piceis.

"Long. 3 lin."

Hab. MEXICO, near the capital (*Flohr*¹, *Sallé*).

Varies in the extent of tawny-yellow markings of the elytra, the marginal irregular vitta being sometimes quite absent and the subapical fascia much reduced: all intermediate gradations occur; and sometimes the apex is testaceous. The thorax is much contracted at the base; and the hind angles would be correctly described as rounded off, were it not for a small, almost dentiform projection. The carina near the angle forms a fine raised line, often difficult of detection, and sometimes even obsolete. The species bears four separate specific names in the Sallé collection; but it is readily distinguished

from its allies by the third elytral interstice being tripunctate instead of bipunctate, the punctures being small and situated nearly in the middle of the interstice.

Subdivision F. *Subtruncati*.

This subdivision is proposed for the reception of a number of genera which partake of the characters on the one hand of the Tripalmati, and on the other of the Truncatipennes, but in such combination that they seem to me to form a separate subtype of Carabidæ, and ought not in a natural system to be included in one or the other. The elytra agree with the subfamily Anchomeninæ and the Truncatipennes subdivision in having uninterrupted lateral margins; but the form of the apex indicates a nearer relationship to the Truncatipennes than to the Tripalmati. The form is modified from genus to genus, the apex being sometimes entire, and sometimes more or less distinctly truncated; but when entire there is no tendency to oblique situation, which is the prevailing character of the Tripalmati, and when truncated it is almost always in a straight line, without sinuation or produced angles, which is so common a condition in the Truncatipennes. The basal margin of the elytra exhibits analogous modifications; but it never forms a right angle (with humeral plica) with the lateral margin, as prevalent in the Pterostichinæ, and, in the less specialized genera, resembles that of certain Anchomeninæ in being broadly rounded at the shoulders, as though it were the continuation of the lateral margin, and suddenly dips at the peduncle to form a curved or straight fine margin to the scutellar striole. In proportion as the genera approach the Odacanthinæ of the Truncatipennes subdivision, this peduncular margin tends to disappear, as in *Casnonia* and *Odacantha*; and in the extreme forms the humeral margin runs obliquely forward or becomes obsolete. With regard to the dilatation and the clothing of the palms of the male fore tarsi, the Subtruncati agree with the Tripalmati, and differ exceedingly little from the Anchomenid type. The relationship of the chief members of the subdivision to the *Casnoniæ* has been recognized by most modern systematists; but the older entomologists were more inclined to see a connexion between them and the Bembidiinæ, to which there is, indeed, much resemblance, both in facies and in habits; but the resemblance is one of analogy rather than of affinity.

Subfam. *LACHNOPHORINÆ*.

ANCHONODERUS.

Anchonoderus, Reiche, Rev. Zool. 1843, p. 38.

About a dozen species of this genus are known, all Tropical American, except one, which occurs in Texas.

1. **Anchonoderus binotatus.**

Anchonoderus binotatus, Reiche, Rev. Zool. 1843, p. 39¹.

Hab. MEXICO, Cordova (*Sallé*), Paso del Macho (*Höge*); GUATEMALA (*Sallé*), near the city, San Gerónimo, Chacoj, Rio Naranjo, Cahabon (*Champion*); PANAMA, Caldera (*Champion*).—SOUTH AMERICA, Colombia¹.

An example, collected by Mr. Champion at Cahabon, has an additional small red spot on each elytron towards the base on interstices 6 and 7.

2. **Anchonoderus subæneus.**

Anchonoderus subæneus, Reiche, Rev. Zool. 1843, p. 40¹.

Hab. GUATEMALA, near the city, Chacoj (*Champion*).—SOUTH AMERICA, Colombia¹.

Probably a variety of *A. binotatus*, differing only in the absence of red spots.

3. **Anchonoderus subtilis.**

Anchonoderus subtilis, Bates, Entom. Monthly Mag. viii. (1871) p. 33¹.

Hab. MEXICO, Cordova (*Sallé*), Paso del Macho (*Höge*); GUATEMALA¹, near the city, San Gerónimo, Paraiso.

LACHNOPHORUS.

Lachnophorus, Dejean, Sp. Gén. Col. v. p. 28.

Confined to America, and similar in range to *Anchonoderus*, but more numerous in species, about twenty-five having already been described. The genus blends with *Anchonoderus* by insensible gradations; but may be distinguished by the elytra having three large punctures on the disk.

1. **Lachnophorus humeralis.** (Tab. VI. fig. 14.)

Oblongus, subdepressus, breviter erecte pubescens, subæneo-piceus, macula subquadrata prope humeros (interstitia 5^o–8^m tegente), scapo pedibusque flavo-testaceis, genibus, tibiis apice et tarsis leviter infuscatis; capite nitido, sparsissime punctato; oculis modice prominentibus; palpis gradatim acuminatis; thorace anguste cordato, marginibus acutis, ante basin sinuatis, angulis parvis exstantibus sed basi juxta angulum oblique truncata, dorso subtiliter coriaceo, seta posteriore apud angulum; elytris apice valde obtusis vel obtuse et suboblique truncatis, punctulato-striatis (striis versus apicem lævibus), interstitiis subtiliter punctulatis, tertio punctis tribus, 1^o et 2^o juxta striam 3^m 3^o juxta striam 2^m sitis.

Long. 2½ lin.

Hab. GUATEMALA, Cahabon, Paraiso, San Gerónimo (*Champion*); PANAMA, Volcan de Chiriqui, Caldera, Bugaba (*Champion*).

The subhumeral yellow spot is sometimes reduced in size, and, very rarely, is entirely wanting.

2. **Lachnophorus guttulatus.**

Oblongus, parum convexus, erecte pilosus, nigro-æneus, antennis basi pedibusque piceo-rufis, femoribus apice excepto pallidioribus; elytris utrinque guttis duabus flavo-testaceis, prima ante medium interstitia 6^m et 7^m

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, January 1883.

vel 6^m-8^m, secunda post medium interstitia 5^m et 6^m tegentibus, flavo-testaceis; palpis fusiformibus, versus apicem acuminatis; oculis magnis, prominentibus; capite supra crebre rugoso-punctato, collo depresso constricto, lævi; thorace anguste cordato, lateribus prope basin rectis, margine laterali subobtusato, dorso coriaceo; elytris apice obtuse rotundatis, plica basali obtusa juxta pedunculum nulla, dorso punctulato-striato (striis versus apicem lævibus, 3^a trifoveata), interstitiis punctulatis.

Long. 2 $\frac{1}{4}$ lin.

Hab. GUATEMALA, San Gerónimo (*Champion*); PANAMA, Bugaba, Caldera (*Champion*).

Allied to *L. maculatus* (Chaud.), but much darker in colour and the thorax smoother. The pale spots of the elytra, always very small, vary in extent, being sometimes restricted to one interstice, and sometimes extended, the first to all the interstices from the sixth to the margin, the second to interstices 4 to 7.

3. *Lachnophorus semirufus*. (Tab. VI. fig. 16.)

Lachnophorus semirufus, Bates, Proc. Zool. Soc. 1878, p. 603¹.

“Breviter oblongus, erecte pilosus, capite thoraceque rufis, elytris pectore abdomineque nigro-æneis, palpis antennis pedibusque flavo-testaceis; capite postice modice angustato, oculis minus prominulis, vertice grossissime punctato; thorace late cordato, versus basin modice angustato, grossissime intricato-punctato; elytris quadratis, fortiter punctato-striatis, interstitiis supra paulo planatis, crenulatis, tertio 3-foveato.

“Long. 2 $\frac{1}{2}$ lin.”

Hab. NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui, 2000 to 4000 feet (*Champion*).

Chiriqui specimens have more richly coloured elytra than those from Chontales, varying from greenish to tawny purplish, with a golden tinge.

4. *Lachnophorus corrosus*.

L. semirufus proxime affinis, capite et thorace similiter grosse scabroso-punctatis, formaque eadem; differt colore supra æneo, elytris interdum subcupreo-æneis. Antennarum articulis 1^o-4^m pedibusque rufis; thorace (sicut in *L. semirufus*) late cordato, basi valde angustata, margine laterali acuto, seta posteriore ad angulum sita; elytris plica basali prope pedunculum obsoleta, striis usque ad pedunculum profunde insculptis.

Long. 2 $\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui, 2000 to 4000 feet (*Champion*).

5. *Lachnophorus subauratus*.

L. corrosus affinis et simillimus, sed differt capite fere lævi sparsim punctato, coloreque supra lætius pallide æneo vel subaurato, pedibus pallidioribus, flavis.

Long. 2 $\frac{1}{2}$ lin.

Hab. GUATEMALA, El Tumbador (*Champion*).

6. *Lachnophorus pictipennis*.

Lachnophorus pictipennis, Bates, Entom. Monthly Mag. viii. p. 57 (1871)¹.

Hab. MEXICO¹, Cordova, Toxpam (*Sallé*), Jalapa, Oaxaca, Cerro de Plumas (*Höge*); HONDURAS (*Sallé*); GUATEMALA, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Belt, Janson*).

In addition to the differential characters given in the description above referred to, may be mentioned the presence of a large distinct puncture in the middle of the forehead.

7. *Lachnophorus sculptifrons*. (Tab. VI. fig. 17.)

Lachnophorus sculptifrons, Bates, Proc. Zool. Soc. 1878, p. 604¹.

“*L. elegantulo* similis. Gracilis, breviter pallido-hirsutus, viridi-æneus; antennarum articulo basali infra, 2^o-4^m basi, femoribus (annulo basali et genibus exceptis) tibiisque (apice excepto) rufo-testaceis; elytris albo-et flavo-testaceis, fascia ultra medium fusco-ænea; capite crebre longitudinaliter strigoso et punctato; thorace elongato-cordato, paullulum dilatato, alutaceo-opaco et sparsim punctulato; elytris acute striatis, striis basi punctatis, interstitiis planatis uniseriatim punctulatis, disco trifoveato, foveola anteriore solum conspicua.

“Long. 2 lin.”

Hab. MEXICO, Etna (*Sallé*), Vera Cruz, Oaxaca (*Höge*); GUATEMALA, Chinautla (*Salvin*¹), near the city, San Gerónimo, Rio Naranjo, Paso Antonio (*Champion*); NICARAGUA, Chontales (*Belt*¹).

Bears the MS. name *Lachnophorus juvenicus* (Chevr.) in the Sallé collection.

8. *Lachnophorus longulus*.

Lachnophorus longulus, Bates, Proc. Zool. Soc. 1878, p. 603¹.

“In hoc genere elongatus, convexior, olivaceo-æneus, breviter setosus; elytris sordide fusco-albis, pone medium fascia irregulari fusca prope suturam valde dilatata; antennis piceo-fuscis, articulo basali infra rufo; femoribus flavo-testaceis, basi et apice piceo-nigris; tibiis et tarsis piceis, illis dimidio basali rufo-piceis; capite longitudinaliter vage striato; thorace angusto, elongato-ovato, lateribus anticis modice rotundatis, basi angustata, angulis posticis haud exstantibus, supra viridi-æneo subtiliter alutaceo et punctulato; elytris oblongis, apice distincte sinuato-truncatis, fortiter exarato-striatis, striis dimidio basali punctatis, interstitiis planis, seriatim punctulatis, disco utrinque 3-foveatis.

“Long. 2½ lin.”

Hab. NICARAGUA, Chontales (*Belt*, *Janson*¹).

Closely allied to *L. sculptifrons*, but more elongate and convex, with the thorax more coarsely and less densely sculptured, consequently more shining, and the elytral interstices beyond the middle less sharply and less uniformly uniseriate-punctate.

9. *Lachnophorus tessellatus*.

Stigmaphorus tessellatus, Motschulsky, Bull. Mosc. 1864, iii. p. 221¹.

Hab. PANAMA, Obispo¹.

This may possibly be the same as *L. longulus*; but the description is too superficial to enable one to judge.

10. *Lachnophorus femoralis*.

Lachnophorus femoralis, Motschulsky, Bull. Mosc. 1864, iii. p. 221¹.

Hab. PANAMA¹.

Apparently a distinct species from any of the preceding.

11. **Lachnophorus axillaris.**

Lachnophorus axillaris, Motschulsky, Bull. Mosc. 1864, iii. p. 221¹.

Hab. PANAMA¹.

Apparently similar to *L. humeralis*, but much smaller in size.

EUPHORTICUS.

Euphorticus, Horn, Trans. Amer. Ent. Soc. ix. p. 144 (1881).

Lachnophorus, partim, Dej. Sp. Gén. Col. v. p. 30.

A genus separated by Dr. Horn from *Lachnophorus* on the characters:—"Last joints of palpi conical, gradually narrowed to tip; the surface glabrous; elytra without dorsal punctures." Three species are referable to the genus, one widely distributed in North and South America, and the other two peculiar to the tropical zones; one of the latter has spotted elytra, viz. *E. quadrinotatus*, from South Brazil.

1. **Euphorticus pubescens.**

Lachnophorus pubescens, Dej. Sp. Gén. Col. v. p. 30¹.

Lachnophorus niger, Gory, Ann. Soc. Ent. Fr. 1833, p. 245².

Lachnophorus lævicollis, Reiche, Rev. Zool. 1843, p. 180³.

Hab. NORTH AMERICA¹.—MEXICO, Cordova (*Sallé*); GUATEMALA, near the city, San Gerónimo, El Reposo, Senahu (*Champion*).—SOUTH AMERICA^{2 3}.

Var. *æneolus*. Lætius æneus, pedibus antennarumque basi interdum fulvo- vel piceo-testaceis.

Hab. MEXICO, Jalapa, Oaxaca (*Höge*); GUATEMALA, near the city, San Gerónimo, Paso Antonio (*Champion*).—SOUTH AMERICA, Amazons to Santa Catharina, S. Brazil.

Reiche and Gory describe their species as black (like the North-American form); but all the South-American examples I have seen are of a light brassy colour. The Central-American examples of the brassy-black type form are generally rather more pilose than the United-States examples I have seen, and the thorax varies in being a little more rotundate in shape; but all the varieties are insensibly connected by intermediate forms.

2. **Euphorticus leucoscelis.**

Lachnophorus leucoscelis, Bates, Proc. Zool. Soc. 1878, p. 603¹.

"*L. lævicollis* (Reich.) proxime affinis. Elongatus, nigro-æneus, nitidus, supra glaber; palpis antennarumque articulis 4 basalibus rufo-testaceis; tibiis (apice excepto) albo-testaceis; capite (cum oculis) quam thorax latiore, punctis magnis conspersis; thorace rotundato-cordato, valde convexo, postice fortiter angustato, basi constricto et depresso, fere impunctato, polito; elytris profunde striatis, striis a basi usque paulo ultra medium grosse punctatis.

"Long. vix 2 lin."

Hab. NICARAGUA, Chontales (*Belt*¹); PANAMA, Bugaba (*Champion*).

Sometimes brightly æneous, like the var. *æneolus* of *E. pubescens*. It is scarcely distinct specifically from that species.

CALYBE.

Calybe, Castelnau, Etud. Entom. p. 92 (1835).

Chalybe, Chaudoir; Bates (olim).

Six species of this genus are known, all Tropical-American. It connects *Lachnophorus* with the extreme form *Ega*, which, on account of its peculiarities, has been placed in a separate group by Dr. Horn, and widely removed from its natural allies.

1. *Calybe belti*.

Chalybe belti, Bates, Proc. Zool. Soc. 1878, p. 604¹.

“Gracilis, subæneo-nigra, breviter griseo-setosa, setis longioribus nigris commixtis; antennis ut in gen. *Ega* brevibus extus incrassatis, brevius hirsutis, articulis tribus basalibus flavis, 4^o–7^m nigro-fuscis, 8^o–11^m albis; capite grosse reticulato-punctato; thorace graciliter cordato, grosse discrete punctato; elytris pone basin valde transversim depressis, acute exarato-striatis, interstitiis summis planatis, distanter lineato-punctatis, utrinque fasciis angustis brevibus macularibus testaceo-albis duabus; pedibus albis, femoribus, tibiis tarsisque apice fuscis.

“Long. 1 $\frac{3}{4}$ lin.”

Hab. NICARAGUA, Chontales (*Belt*¹).

EGA.

Ega, Castelnau, Etud. Entom. p. 93 (1835).

Twelve species of this peculiar Tropical-American genus have been described, two of which are of wide range in Central and temperate North America.

1. *Ega sallæi*. (Tab. VI. fig. 15.)

Ega Sallæi, Chevrolat, Rev. Zool. 1889, p. 308¹.

Hab. NORTH AMERICA, New Orleans¹.—MEXICO, Vera Cruz, Tuxtla (*Sallé*), Jalapa (*Höge*); GUATEMALA, Champerico, El Jicaró, Rio Maria Linda, Paso Antonio (*Champion*); NICARAGUA, Chontales (*Janson*).

In some examples from Champerico the second elytral stria is nearly as strongly impressed as the first, and the others extend beyond the basal depression. They thus connect the species with the following.

2. *Ega lætula*.

Ega lætula, Leconte, Ann. Lyc. N. York, v. p. 173¹.

Hab. NORTH AMERICA, California¹.—MEXICO (*Truqui*), Cordova (*Sallé*), Jalapa (*Höge*).—GUATEMALA, near the city, San Gerónimo, Pantaleon, Rio Naranjo (*Champion*).

3. **Ega fuscoænea.**

Ega fuscoænea, Motschulsky, Bull. Mosc. 1864, iii. p. 220¹.

Hab. PANAMA¹.

According to the brief description, a well-marked and distinct species, but unknown to me.

Subdivision G. *Obtusipennes.*

The genera *Leptotrachelus*, *Ctenodactyla*, *Amblycoleus*, *Hexagonia*, and their immediate allies, hitherto classed by systematists in the Truncatipennes series, although the elytra present no trace of truncature, constitute this new subdivision. A point of structure which has hitherto escaped notice amply justifies this separation. It is the interrupted margin of the elytra before the apex, which is almost as well developed in *Ctenodactyla*, the broader species of *Leptotrachelus* (*L. trifasciata*), and *Hexagonia*, as in the Pterostichinæ. The significance of this feature is not materially diminished by the fact that the notch in the margin is obsolete in the typical species of *Leptotrachelus*, the ridge on the under surface of the elytra being retained in a rudimentary condition in those species. The Australian genus *Amblytelus* and an undescribed genus from West Africa belong to the subdivision, the former as a subfamily equivalent to Ctenodactylinæ. *Euplynes* (Schmidt-Goebel), in which the elytral margin and ridge are in a condition similar to that of the typical species of *Leptotrachelus*, may also be included.

Subfam. CTENODACTYLINÆ.

LEPTOTRACHELUS.

Leptotrachelus, Latreille, Règne Animal, 2 ed. iv. p. 371 (1829).

Rhagocrepis, Eschscholtz, Zool. Atlas, ii. p. 5 (1829).

Spheracra, Say, Trans. Amer. Phil. Soc. iv. p. 412 (1834).

Twenty-five species of this characteristic American genus have been described, all tropical, except one, which is a well-known insect of the United States. Many of the species are founded on extremely slight differences; and it is doubtful if they can be maintained.

1. **Leptotrachelus mexicanus.**

Leptotrachelus mexicanus, Chaudoir, Bull. Mosc. 1852, i. p. 32.

Leptotrachelus dorsalis (Fab.), Chaudoir, loc. cit. 1848, i. p. 59.

Hab. MEXICO, Cordova, Tehuantepec (*Sallé*), Misantla (*Höge*), Jalapa (*Flohr*); GUATEMALA, San Gerónimo, El Jicaro, Capetillo (*Champion*); NICARAGUA, Chontales (*Janson*); PANAMA, David (*Chontales*).

The specimens from Chontales and David differ somewhat from all the others in the

outline of the posterior part of the head—the sides, behind the eyes, being distinctly rounded instead of nearly straight. There is a sexual difference of this nature in some species of this genus (as in *Agra*); but I doubt whether this will explain the present case.

2. *Leptotrachelus puncticollis*. (Tab. VI. fig. 18.)

Leptotrachelus puncticollis, Bates, Proc. Zool. Soc. 1878, p. 600¹.

“Fulvo-testaceus, immaculatus, pedibus pallidioribus; capite lævi, post oculos paullo rotundatim angustato, convexo; thorace antice prope apicem distincte angustato, ante medium rotundato-dilatato, supra passim punctulato, versus angulos posticos grossius punctato; elytris depressis, punctato-striatis.

“Long. $4\frac{1}{4}$ – $4\frac{1}{2}$ lin.”

Hab. GUATEMALA, Capetillo, San Gerónimo, Torola (*Champion*); NICARAGUA, Chontales (*Janson*¹); PANAMA, Volcan de Chiriqui (*Champion*).

The sole constant difference between this and the preceding species is its immaculate elytra, *L. mexicanus* having (with *L. dorsalis* and other species) the suture and an elongated common spot towards the apex of the elytra blackish.

3. *Leptotrachelus panamensis*.

Leptotrachelus panamensis, Bates, Proc. Zool. Soc. 1878, p. 600¹.

“Fulvo-testaceus fuscescens, sutura angusta plagaque apicali nigro-fuscis; antennis et pedibus pallidioribus; capite lævi; thorace antice prope apicem angustato, lateribus anticis leviter rotundatis, ante basin paullo sinuatis, supra punctato et medio dorsi punctato-rugoso.

“Long. $4\frac{1}{4}$ lin.”

Hab. PANAMA¹.

The fuscous spot is not a defined sutural patch as in *L. mexicanus*, but is diffused over the apical portion of the elytra.

4. *Leptotrachelus planus*.

Leptotrachelus planus, Motschulsky, Bull. Mosc. 1864, ii. p. 218¹; Chaudoir, Bull. Mosc. 1872, i. p. 417.

Hab. PANAMA¹.

Distinguished from the preceding by its elytra and knees being dark brown.

5. *Leptotrachelus fulvus*.

Leptotrachelus fulvus, Motschulsky, Bull. Mosc. 1864, ii. p. 218¹; Chaudoir, Bull. Mosc. 1872, i. p. 417.

Hab. PANAMA.

Differs from all the foregoing species by the head being of dark colour and rugose punctate.

6. *Leptotrachelus suturalis*.

Leptotrachelus suturalis, Castelnau, Ann. Soc. Ent. Fr. 1832, p. 389¹; Motschulsky, Bull. Mosc. 1864, ii. p. 218².

Hab. PANAMA².—SOUTH AMERICA, Cayenne¹.

7. *Leptotrachelus dilaticollis*.

Valde elongatus, flavo-testaceus (capite thoraceque rufescentibus); capite post oculos subrecto et sat valde angustato, lævi; thorace subcordato, lateribus explanatis (margine reflexo-acuto), mox ante basin sinuato-angustatis, angulis posticis rectis, basi tantum parce punctata; elytris maxime elongatis, parallelis, apice obtusis, margine ante apicem sinuato subinterrupto, carina inferiore subtus deflexa et continuata, dorso modice depresso punctato-striato, interstitio tertio 3-punctato; tarsis quam in speciebus typicis vix latioribus, articuli quarti lobis sublinearibus.

Long. 5 lin.

Hab. GUATEMALA, Chiacam (*Champion*).

Approaches the genus *Amblycoleus* (Chaud.), which is known to me only from the description. It seems to differ by its less broadly rounded apex of elytra and less dilated tarsal joints. In facies it much resembles *Calleida pallidipennis*. One example only has been received.

Subdivision H. *Truncatipennes*.

Subfam. ODACANTHINÆ.

CASNONIA.

Casnonia, Latreille, Icon. Col. Europ. i. p. 77 (1822); Chaudoir, Bull. Mosc. 1862, iv. p. 275.

Plagiorhytis, Chaudoir, Bull. Mosc. 1848, i. p. 31.

Apiodera, Chaud. ibid. p. 35.

About ninety species of this widely distributed genus have been described. Its head quarters, as far as number and variety of specific forms are concerned, are in Tropical America, a much smaller number occurring in Tropical and Subtropical Africa, Asia, and Australia. Three species are found in Temperate North America.

1. *Casnonia picta*.

Casnonia picta, Chaudoir, Bull. Mosc. 1843, iv. p. 697; 1862, iv. p. 276¹.

Hab. MEXICO¹, Puebla, Chapulco (*Sallé*), near the capital (*Sallé, Flohr*), Valle del Maiz (*Dr. Palmer*), Tehuacan (*Höge*).

2. *Casnonia tetrastigma*.

Casnonia tetrastigma, Chaudoir, Bull. Mosc. 1862, iv. p. 278¹.

Hab. MEXICO, Tlacotalpam¹, Cordova (*Sallé*).

3. *Casnonia subdistincta*.

Casnonia subdistincta, Chaudoir, Bull. Mosc. 1862, iv. p. 292¹.

Hab. MEXICO¹, Cordova, Presidio (*Forrer*).

Var. Elytris disco posteriore colloque lævioribus, maculaque testacea apicali majore.

Apiodera transparens, Motschulsky, Bull. Mosc. 1864, iii. p. 219¹. (Tab. VI. fig. 20.)

Hab. CENTRAL AMERICA¹; GUATEMALA, San Isidro, Paraiso (*Champion*).

The variety *C. transparens* is not quite constant, some Mexican examples having a more or less distinct polished space on the elytra.

4. *Casnonia irregularis*.

C. marmoratæ similis, sed differt inter alia elytrorum interstitiis latitudine valde inæqualibus. Opaca, elytris sericeis punctis nitidis, macula medio-marginali fasciaque maculari apicali pallide testaceis; obscure æneofusca, antennis dimidio basali rufo-testaceo, pedibus flavo-testaceis, femoribus annulo et apice, tibiis tarsorumque articulis apice fuscis: capite post oculos recte angustato crebre ruguloso; thorace valde elongato et angusto, granulato-opaco, pronoti marginibus supra conspicuis, linea dorsali subbrevis, toto dorso regulariter transversim rugato; elytris breviter oblongis, apice sinuato-truncatis, angulis productis exteriore dentiformi, dorso plano, subtilissime granulato, striato, interstitiis 2° et 4°, 6° et 7° versus basin, 4° et 6° iterum versus apicem, valde angustatis, 1°, 3°, 5° et 7° seriatim setifero-punctatis.

Long. 3-4 lin.

Hab. GUATEMALA, El Reposo, Toco (Champion).

5. *Casnonia tristigma*.

C. tripustulatæ (Chaud.) quam maxime affinis, differt tantum striis post medium fere obsoletis. Angusta, castaneo-fusca, subnitida, antennis, pedibus (femoribus apice late fuscis exceptis) maculisque tribus elytrorum (scilicet una utrinque discoidali prope medium, et una posteriore communi suturali) margineque testaceo-fulvis; capite lævi, post oculos recte et valde angustato, collo prolongato; thorace modice elongato, transversim rugulato; elytris apice subobtusè truncatis, angulo exteriore parum producto, dorso antice punctato-striato, postice lævi.

Long. 2½ lin.

Hab. GUATEMALA, Toco (Champion).

One example only.

6. *Casnonia marginestriata*. (Tab. VI. fig. 19.)

Casnonia marginestriata, Putzeys, Mém. Soc. R. Liège, ii. p. 371¹; Chaudoir, Bull. Mosc. 1872, i. p. 408.

Hab. MEXICO, Oaxaca¹, Jalapa (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

7. *Casnonia pilatei*.

Casnonia pilati, Chaudoir, Bull. Mosc. 1848, i. p. 47.

Casnonia pilatei, Chaud. ibid. 1862, iv. p. 289¹.

Hab. MEXICO, Yucatan (*Pilate*¹), Cordova (*Sallé*), Jalapa, Oaxaca (*Höge*); HONDURAS (*Sallé*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, January 1883.

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8. *Casnonia tubulifera*. (Tab. VI. fig. 25.)

Casnonia tubulifera, Bates, Proc. Zool. Soc. 1878, p. 604¹.

“Subæneo-nigra, elytris macula anteriore antice ramum ad basin emittente et altera apicali marginibusque rufotestaceis; antennis pedibusque rufescentibus; capite lævi, mox pone oculos subito constricto, deinde in collum tubuliforme prolongato; media fronte bicallosa; thorace minus elongato, grosse punctato; elytris oblongis, politis, nudis, apice leviter sinuatim truncatis, angulo exteriori obtuso, supra striato-punctatis, striis interioribus quatuor post medium interruptis, interstitio tertio trifoveato, calloque posteriore submarginali.

“Long. 3 lin.”

Hab. GUATEMALA, Cahabon (*Champion*); CHONTALES, Nicaragua (*Belt*)¹; PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

The single Guatemala example differs from all those from other localities in the tawny markings of the elytra being reduced to a few small spots.

9. *Casnonia sulcicauda*.

C. marginestriatæ affinis et quoad formam similis (gracilis, elytris relative brevibus subovatis). Nigra, nitida, capite thoraceque æneo tinctis, elytris fascia flexuosa prope apicem et altera abbreviata (vel linea transversa) mediana margineque anguste testaceo-albis; antennis articulis 2^o-4^m pedibusque pallide testaceis, femoribus annulato lato, tibiis tarsorumque articulis apice infuscatis: capite postice modice elongato, gradatim recte angustato, fronte irregulariter rugulosa; thorace antice anguste cylindrico, postice subito dilatato, supra transversim recte striato; elytris medio lævibus, apice arcuatim sinuato-truncatis, juxta basin et apicem tantum striatis, striis apud basin vix impressis, apud apicem profunde et late insculptis, striis marginalibus (8^a et 9^a) integris, 8^a in medio subtiliore.

Long. 3½ lin.

Hab. GUATEMALA, San Gerónimo (*Champion*).

10. *Casnonia championi*.

C. corruscæ (Chaud.) affinis, multo minor. Æneo-nigra, antennis, palpis et pedibus rufescenti-testaceis (femoribus basi et apice albis); elytris utrinque fasciis macularibus duabus, interstitia 4^m-7^m transeuntibus: capite convexo, lævissimo, ovato, post oculos paullulum rotundato-angustato, fronte antice rugata, epistomate quadrifoveolato; thorace modice elongato, ab apice usque ad medium leviter dilatato, ante basin vix angustato, supra transversim plicato; elytris oblongis, angulo apicali exteriori dentiformi, dorso ante medium late depresso, grosse striato-punctatis, callo magno prope scutellum fere lævi, striis versus marginem valde impressis, apud fascias sulcatis, interstitio tertio et quinto pluripunctatis.

Long. 3½ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Resembles the *C. corrusca* of Ecuador, a fine species 5½ lines long and more robust in all its parts. In colours and general form there is scarcely any difference; but the head is much more convex and less rectilinearly narrowed behind, and the sculpture of the elytra differs in the lesser area occupied by sulciform striæ and the more regular punctuation.

CALOPHÆNA.

Calophæna, Klug, Nova Acta Acad. Leop. x. p. 295.

Cordistes, Latreille, Hist. Nat. et Icon. Col. Eur. i. pp. 77, 126.

Of this well marked and handsome genus, peculiar to Tropical America, twenty-eight species have been described. It was classed by Lacordaire and Chaudoir in the same group as *Galerita* and *Drypta*; but Dr. Horn has recently shown good reason why it should be removed from that position, and restored it to the Odacanthinæ group, in which it was originally placed by Latreille. It agrees with the Odacanthinæ and differs from the Dryptinæ in the bisetose penultimate joint of the labial palpi. The tarsal structure, however, is highly peculiar, and resembles that of neither subfamily, but seems to be an extreme development of that exhibited by the Ctenodactylinæ.

1. *Calophæna cruciata*. (Tab. VI. fig. 22.)

Calophæna cruciata, Bates, Proc. Zool. Soc. 1878, p. 605¹.

“*C. acuminatæ* (Oliv.) affinis. Nigro-cyanea, nitida; elytris utrinque maculis magnis quadratis duabus (interstitia sex occupantibus) albo-testaceis, basi et apice anguste cruceque mediana nigro-cyaneis; thorace valde elongato, antice magis quam postice recte angustato; elytris punctulato-striatis, interstitiis modice convexis; antennis articulis 5^o-11^m fulvis.

“Long. 6½ lin.”

Hab. CHONTALES, Nicaragua (*Belt*¹, *Janson*).

2. *Calophæna lævigata*.

Calophæna lævigata, Bates, Proc. Zool. Soc. 1878, p. 605¹.

“*C. acuminatæ* (Ol.) affinis, colore lætius cyanea. Elytris medio violaceis, striis (nisi apud maculas albas) nullomodo impressis; thorace valde elongato, antice subrotundatim, postice sinuatim angustato; elytris aculeatis, maculis utrinque duabus transversis albo-testaceis, prima interstitia 5, secunda 6 occupante.

“Long. 6½ lin.”

Hab. PANAMA¹, Bugaba (*Champion*).

3. *Calophæna bicincta*.

Odacantha bifasciata, Latreille, Voy. Humboldt & Bonpland, Zool. p. 175. no. 24, t. 17. f. 1¹ (nom. præocc.).

Cordistes bicinctus, Dejean, Sp. Gén. Col. v. p. 291.

Hab. NICARAGUA, Chontales (*Belt*).—SOUTH AMERICA, Ecuador¹.

Var. *C. ligata* (Tab. VI. fig. 21). Fasciis nigris elytrorum per vittam suturalem nigram conjunctis.

Hab. GUATEMALA, Telemán (*Champion*); NICARAGUA, Chontales (*Belt*).

The var. *ligata* has perceptibly longer elytra than the type, but a Chontales specimen is intermediate in this respect.

4. *Calophæna arcuata*.

Cordistes arcuatus, Guérin, Rev. Zool. 1844, p. 9¹.

Var. *C. complanata*. Striis tenuissimis vix impressis, fasciisque nigris arcuatis latioribus².

Hab. PANAMA (*Macleannan*²).—SOUTH AMERICA, Colombia¹.

5. *Calophæna vitticollis*.

C. arcuatæ affinis, sed multo minor et angustior. Flava, vitta laterali utrinque thoracis fasciisque duabus elytrorum nigris; capite quoad formam ut in *C. arcuata*, collo utrinque fusco vittato; thorace a medio usque ad apicem sat valde angustato; elytris anguste oblongis, apice ad suturam breviter spinosis, dorso punctato-striato, fascia prima angustiore antice ad suturam late emarginata, postice cum fascia latiore postica per vittam suturalem conjuncta.

Long. 3 $\frac{1}{4}$ lin.

Hab. PANAMA, Bugaba (*Champion*).

Subfam. DRYPTINÆ.

GALERITA.

Galerita, Fabricius, Syst. Eleuth. i. p. 214.

Upwards of fifty species of this fine genus have been described. The majority inhabit Tropical America, a smaller number (including the largest in size) being found in Tropical Africa, and a few in India and Eastern Asia, including Japan. In America also the genus extends into temperate latitudes, and is well represented in the United States.

1. *Galerita simplex*.

Galerita simplex, Chaudoir, Bull. Mosc. 1852, i. p. 36¹.

Hab. MEXICO¹, Cordova (*Sallé, Höge*), Playa Vicente (*Sallé*).

2. *Galerita æquinotialis*.

Galerita æquinotialis, Chaudoir, Bull. Mosc. 1852, p. 37¹.

Var. *G. elegans*, Chaud. ibid. 1861, ii. p. 553².

Hab. MEXICO¹, Cordova, Vera Cruz (*Sallé*), Minas Viejas (*Dr. Palmer*), Jalapa, Oaxaca (*Höge*); GUATEMALA, Chiacam, San Joaquin, Balheu (*Champion*).

3. *Galerita nigra*.

Galerita nigra, Chevrolat, Col. Mex. ii. no. 181; Chaudoir, Bull. Mosc. 1861, ii. p. 554¹.

Hab. MEXICO, Cordova, Toxpam (*Sallé*), Jalapa (*Höge*).

Var. *a.* Pedes fulvi, genibus tarsisque posticis fuscis (*Chaudoir, l. c. p. 554*)².

Hab. MEXICO, Toxpam².

Var. *b*. Pedes sicut in var. *a*, sed tarsi omnibus, antennis palpisque fulvis.

Hab. GUATEMALA, Paso Antonio (*Champion*).

Var. *c*. Pedes, antennæ et palpi sicut in var. *b*, sed thorax (margine basali medio nigro excepto) rufus.
(Tab. VI. fig. 23.)

Hab. GUATEMALA, Paso Antonio (*Champion*).

4. *Galerita beauvoisi*.

Galerita beauvoisii, Chaudoir, Bull. Mosc. 1861, ii. p. 553¹.

Hab. GUATEMALA, San Gerónimo, Capetillo, San Joaquin (*Champion*).—WEST INDIES?¹

This Guatemala species agrees very well with Chaudoir's description, drawn up from a single example from Dejean's collection, ticketed with the name of Beauvois, but without locality. It differs from *G. æquinoctialis* chiefly in the elytra narrowing towards the base, with very oblique shoulders, and in the elongated thorax, marked with long and rather deep basal furrows.

5. *Galerita boucardi*.

Galerita boucardii, Chaudoir, Rev. et Mag. Zool. 1869, p. 25 (tir. à part)¹.

Hab. MEXICO, Cuernavaca (*Boucard*¹), Guanajuato (*Dugès, coll. Sallé*).

6. *Galerita ruficollis*.

Galerita ruficollis, Dejean, Sp. Gén. i. p. 191 (1825)¹.

Galerita insularis, Castelnau, Hist. Nat. Ins. Col. i. p. 36 (1840)²; Chaudoir, Bull. Mosc. 1861, ii. p. 555³.

Galerita thoracica, Chevrolat, Col. Mex. i. fasc. 2 (1834)⁴.

Galerita erythrodera, Brullé, Silb. Rev. Ent. ii. p. 103 (1834)⁵.

Hab. MEXICO^{3 4}, Orizaba, Puebla, Tehuantepec (*Sallé*), Presidio (*Forrer*), Yucatan, Merida (*Sallé, Höge*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, San Gerónimo, Telemán (*Champion*); NICARAGUA, Managua (*Sallé*), Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui (*Champion*).—WEST INDIES^{3 5}, Cuba^{1 2}.

7. *Galerita mexicana*.

Galerita mexicana, Chaudoir, Rev. et Mag. Zool. 1872, p. 3¹.

Galerita atripes, Leconte, Proc. Acad. Phil. 1858, p. 59².

Hab. NORTH AMERICA, Rio Grande¹.—MEXICO, Puebla, Capulalpam (*Sallé*), Presidio (*Forrer*), Bobo, Oaxaca (*Höge*); GUATEMALA (*Sallé*), San Gerónimo (*Champion*).

8. *Galerita forreri*. (Tab. VII. fig. 2.)

G. bicolori (Drury)=*longicollis* (Chaud.) quoad formam similis, sed, antennis apice rufescentibus exceptis, tota nigra. Nigra, obscura, capite postice valde elongato, gradatim angustato, supra grosse confluentem

punctato; thorace elongato angusto medio rotundato antice gradatim angustato, angulis anticis a collo paullo remotis, postice valde sinuato sed minus quam antice angustato, angulis porrectis subacutis, supra ruguloso-punctulato; elytris punctulato-striatis, interstitiis planissimis, granulatis.

Long. 10-11 lin.

Hab. MEXICO, Presidio (*Forrer*).

ZUPHIUM.

Zuphium, Latr. Gen. Crust. et Ins. i. p. 198.

About forty species have been described of this genus, which is more widely distributed than *Galerita*, being found in the warmer temperate as well as the tropical regions of both hemispheres; but the specific forms are more numerous and varied in the Old World than in the New. Two species are found in Europe.

1. *Zuphium mexicanum*.

Zuphium mexicanum, Chaudoir, Bull. Mosc. 1862, iv. p. 314¹.

Hab. MEXICO¹, Cordova (*Sallé*).

DIAPHORUS.

Diaphorus, Dejean, Sp. Gén. Col. v. p. 300 (1831); Leconte, Ann. Lyc. N. York, v. p. 173; Chaudoir, Bull. Mosc. 1862, iv. p. 315.

Pseudaptinus, Castelnau, Etud. Ent. p. 56 (1835).

Enaphorus, Leconte, Ann. Lyc. N. York, v. p. 174 (1851).

Thalpius, Lec. ibid. p. 174, nota.

Zuphiosoma, Castelnau, Trans. R. Soc. Victoria, 2, vol. viii. p. 103 (1868).

Seventeen species of this genus have been described, all Tropical-American, except one (*Zuphiosoma fulva*, Cast.), which inhabits Queensland, Australia.

1. *Diaphorus tenuicornis*.

Diaphorus tenuicornis, Chaudoir, Rev. et Mag. Zool. 1872, p. 6¹.

Hab. MEXICO (*Truqui*)¹, Cordova (*Sallé*), Oaxaca (*Höge*).

2. *Diaphorus högei*. (Tab. VI. fig. 24.)

D. (*Thalpio*) *pygmaeo* affinis, multo major, dense pubescens, fulvo-ferrugineus, antennis, palpis pedibusque pallidis, elytris vittula suturali ante apicem nigro-fusca: capite thoraceque grosse sed discrete punctatis, nitidis, illo ovato post oculos vix prominentes rotundato subdilatato, collo constricto; thorace anguste cordato, elongato, angulis posticis acutis paullo exstantibus, margine basali juxta angulos valde obliquo subsinuato; elytris anguste oblongis punctato-striatis, interstitiis tantum versus basin elevatis subcarinatis; antennis crassis dense pubescentibus, articulis 2° et 3° paullo brevioribus conicis; palpis maxillaribus incrassatis, articulo terminali dilatato subsecuriformi.

Long. 3 lin.

Hab. MEXICO, Maltrata (*Höge*).

ANCISTROGLOSSUS.

Ancistroglossus, Chaudoir, Bull. Mosc. 1862, iv. p. 307.

Confined, as far as at present known, to Tropical America. Only three species have been described.

1. ***Ancistroglossus dimidiaticornis***. (Tab. VII. fig. 1.)

Ancistroglossus dimidiaticornis, Chaudoir, Bull. Mosc. 1862, iv. p. 310¹.

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Amazons¹.

2. ***Ancistroglossus gracilis***.

Ancistroglossus gracilis, Chaudoir, Bull. Mosc. 1862, iv. p. 308¹.

Hab. MEXICO¹; BRITISH HONDURAS, Belize (*Blancaneaux*).

Subfam. *HELLUONINÆ*.

HELLUOMORPHA.

Helluomorpha, Castelnau, Hist. Nat. Col. i. p. 47 (1840).

Twenty-three species have been described of this genus, which is exclusively American and distributed throughout the warmer temperate zones, north and south, as well as the tropical.

1. ***Helluomorpha ferruginea***.

Helluomorpha ferruginea, Leconte, Classif. Carab. U. S. p. 373¹.

Hab. NORTH AMERICA, Texas¹.—MEXICO, Guanajuato (*Dugès, coll. Sallé*).

2. ***Helluomorpha mexicana***.

Helluomorpha mexicana, Chaudoir, Rev. et Mag. Zool. 1872, p. 12¹.

Hab. MEXICO, Yucatan¹, Orizaba (*Sallé*), Jalapa (*Höge*).

3. ***Helluomorpha longicollis***. (Tab. VII. fig. 3.)

Elongata et angusta; thorace quam in cæteris speciebus multo longiore, grosse hic illic confluentem punctato, disco utrinque lævi, basi juxta angulos oblique truncata angulis ipsis obtusis; elytris sulcatis (striis haud impressis), biseriatim punctatis, interstitiis sat convexis lævibus; sternis sparsim et minus grosse punctatis. Long. 7 lin.

Hab. GUATEMALA, Capetillo (*Champion*).

One example only. The thorax is longer and narrower than in any other species known to me.

PLEURACANTHUS.

Pleuracanthus, Gray in Griffith's An. Kingd. Ins. i. p. 272; Chaudoir, Rev. et Mag. Zool. 1872, p. 14.

A genus closely allied to *Helluomorpha*, and, like it, exclusively American, but, as far as at present known, not occurring outside the tropics. Twelve species have been described.

1. *Pleuracanthus cribratus*.

Pleuracanthus cribratus, Reiche, Rev. Zool. 1842, p. 374¹.

Hab. NICARAGUA, Chontales (*Janson*).—SOUTH AMERICA, Venezuela¹.

Subfam. *EUCHEILINÆ*.

This subfamily is necessary for the reception of the genus *Eucheila* (Dejean), which differs widely from all other groups of Truncatipennes by its horny spoon-shaped ligula, large convex labrum, and deficient paraglossæ, characters which are combined with tarsi similar to those of the Cymindinæ, the joints being linear, bristly beneath, and the claws slender and serrated. *Eucheila* is a South-Brazilian form which has not yet been found in Central America; but I venture to associate with it another American genus occurring in Guatemala, not unlike it in general form, and exhibiting the same structural features of labrum and ligula, although in a minor degree of development. This is the curious genus *Inna* (Putzeys). The author of the genus believed it to be allied to *Calleida*, to which it has only a most distant affinity. Chaudoir pronounced it to be a form intermediate between the Helluoninæ and the Cymindinæ. In fact it is only in the Helluoninæ that we find organs of the mouth at all similar to those of *Eucheila*; but there are still wanting many steps in the gradation of affinity between the two subfamilies to make their approximation at all certain.

INNA.

Inna, Putzeys, Mém. Soc. R. de Liège, xviii. p. 71 (1863); Chaudoir, Rev. et Mag. Zool. 1872 (tirage à part, p. 24).

Polystichus, Solier; *Cymindis*, Dejean.

Six species of *Inna* are known, all Tropical-American.

1. *Inna costulata*.

Inna costulata, Chaudoir, Rev. et Mag. Zool. 1872, p. 27¹.

Hab. GUATEMALA, Zapote (*Champion*).—SOUTH AMERICA, Colombia¹.

Agrees pretty well with Chaudoir's description; but the single specimen is somewhat larger than the size he gives.

Subfam. *BRACHININÆ*.

PHEROPSOPHUS.

Pheropsophus, Solier, Ann. Soc. Ent. Fr. 1833, p. 461; 1834, t. xvi. ff. 5-7; Chaudoir, Monogr. de Brachynides, p. 6 (1876).

Sixty-seven species of this widely distributed genus were enumerated in the late Baron de Chaudoir's monograph cited above. They are abundant insects in the tropical zones of both hemispheres, and extend into the warmer temperate regions in Africa, Australia, and Eastern Asia; but Central America and Mexico appear to be poorly furnished, and the genus is unknown in temperate North America.

1. *Pheropsophus æquinoctialis*.

Cicindela æquinoctialis, Linn. Amœn. Acad. vi. p. 395 (1763).

Pheropsophus æquinoctialis, Chaudoir, Monogr. Brach. p. 35¹.

Carabus complanatus, Fabr. Syst. Ent. p. 242 (1775).

Brachinus complanatus, Fabr. Syst. Eleuth. i. p. 217 (1801).

Carabus planus, Oliv. Ent. iii. 35. p. 62, tab. 6. f. 63.

Hab. MEXICO, Yucatan (*Dr. Horn, coll. Bates*).—SOUTH AMERICA¹.

Yucatan specimens are deficient in the humeral spot, and the apical spot is very small or wanting, thus approaching the Colombian var. *P. distinctus*, Dej.

2. *Pheropsophus biplagiatus*. (Tab. VII. fig. 5.)

Pheropsophus biplagiatus, Chaudoir, Monogr. Brach. p. 8¹.

Hab. MEXICO¹, Juquila (*Boucard, coll. Sallé*).

BRACHINUS.

Brachinus, Weber, Obs. Ent. p. 22 (1801).

Brachynus, Chaudoir, Monogr. des Brachynides, p. 39 (1876).

About 150 species of this genus have been described. With the exception of Australia and all oceanic islands, it is distributed over the tropical and temperate regions of both hemispheres.

1. *Brachinus mexicanus*.

Brachinus mexicanus, Dejean, Sp. Gén. v. p. 428; Chaudoir, Monogr. des Brachyn. p. 63¹.

Brachinus convexus, Chaudoir, Bull. Mosc. 1837, iii. p. 7.

Hab. MEXICO¹, Cordova, Yolos, Etlá, Izucar, Capulalpam, Tuxtla (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), Jalapa, Oaxaca (*Höge*), Mexico city (*Flohr*); GUATEMALA, near the city (*Salvin, Champion*), Panajachel (*Champion*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, March 1883.

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2. **Brachinus cognatus.**

Brachynus cognatus, Chaudoir, Monogr. des Brachyn. p. 64¹.

Hab. MEXICO¹, Puebla, Tuxtla, Vera Cruz (*Sallé*), Jalapa (*Höge*).

3. **Brachinus carinulatus.**

Brachinus carinulatus, Motschulsky, Bull. Mosc. 1859, ii. p. 139¹; Chaudoir, Monogr. des Brachyn. p. 64².

Hab. NORTH AMERICA, California^{1 2}.—MEXICO², Izucar, Etna (*Sallé*), Jalapa (*Höge*).

4. **Brachinus elongatulus.**

Brachynus elongatulus, Chaudoir, Monogr. des Brachyn. p. 65¹.

Hab. MEXICO, near the city, Orizaba (*Sallé*), Guanajuato¹ (*Dugès, coll. Sallé*), Jalapa (*Höge*), Mexico city (*Flohr*).

Var.? *brevior*, Chaudoir, Monogr. p. 65¹.

Hab. MEXICO, Oaxaca¹, Capulalpam, Cuernavaca (*Sallé*), Hacienda de los Bleados (*Dr. Palmer*).

5. **Brachinus azureipennis.**

Brachynus azureipennis, Chaudoir, Monogr. des Brachyn. p. 65¹.

Hab. MEXICO, Matamoros¹, Izucar (*Sallé*).

6. **Brachinus rhytiderus.**

Brachynus rhytiderus, Chaudoir, Monogr. des Brachyn. p. 66¹.

Hab. MEXICO (*Boucard*¹), Guanajuato (*Dugès, coll. Sallé*), Cuernavaca, Yolos (*Sallé*), Jalapa, Oaxaca (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

7. **Brachinus consanguineus.**

Brachynus consanguineus, Chaudoir, Monogr. des Brachyn. p. 66¹.

Hab. MEXICO, Toluca (*Boucard*¹).

8. **Brachinus geniculatus.**

Brachinus geniculatus, Dejean, Sp. Gén. Col. v. p. 428¹.

Brachynus geniculatus, Chaudoir, Monogr. des Brachyn. p. 68².

Brachinus ventralis, Mannerheim, Bull. Mosc. 1837, ii. p. 40³.

Hab. MEXICO², Cordova, Yolos (*Sallé*), Jalapa (*Höge*); GUATEMALA (*Sallé teste Chaudoir*), Capetillo (*Champion*); NICARAGUA (*Sallé teste Chaudoir, Belt*).—SOUTH AMERICA; COLOMBIA^{1 2}; BRAZIL³.

9. **Brachinus lateralis.**

Brachinus lateralis, Dejean, Sp. Gén. Col. v. p. 424¹.

Brachynus lateralis, Chaudoir, Monogr. des Brachyn. p. 66².

Hab. NORTH AMERICA¹.—MEXICO², Tuxtla (*Sallé*), Jalapa (*Höge*); GUATEMALA, Paso Antonio (*Champion*); NICARAGUA, Managua (*Sallé*).—SOUTH AMERICA; COLOMBIA².

10. **Brachinus arboreus.**

Brachinus arboreus, Chevrolat, Col. Mex. i. fasc. 2¹.

Hab. MEXICO¹, Cordova, Toxpam (*Sallé*), Jalapa (*Höge*).

11. **Brachinus melanarthrus.**

Brachynus melanarthrus, Chaudoir, Monogr. des Brachyn. p. 74¹.

Hab. MEXICO (*Sallé*)¹.

Not in the *Sallé* collection.

12. **Brachinus sallæi.** (Tab. VII. fig. 6.)

Brachynus sallæi, Chaudoir, Monogr. des Brachyn. p. 75¹.

Hab. MEXICO¹ (*Sallé*).

13. **Brachinus cinctipennis.** (Tab. VII. fig. 4.)

Brachinus cinctipennis, Chevrolat, Col. Mex. ii. no. 163¹.

Hab. MEXICO¹, near the city (*Sallé*, *Flohr*, *Höge*).

Subfam. *TETRAGONODERINÆ*.

This group, some of the members of which were included by Lacordaire in the *Lebiinæ*, and others relegated to distant parts of the *Carabidæ* series, was defined for the first time by Chaudoir in his 'Etude Monographique des Masoréides, des Tetragonodérides et du genre *Nemotarsus*,' published in 1876. The subfamily is justified by the peculiar combination of characters which it presents—connate paraglossæ, long spurs to the hind tibiæ, maxillæ prolonged beyond the terminal hook in a hairy lobe, and the appearance in its typical genus of a structure of male tarsi not elsewhere seen in the *Carabidæ*, viz. three joints dilated with biseriate squamæ on the soles in the fore legs, and four or three joints dilated with brush-like soles in the intermediate legs.

TETRAGONODERUS.

Tetragonoderus, Dej. Sp. Gén. Col. iv. p. 485; Chaudoir, Etude Monogr. des Masoréides, &c. p. 33;

Horn, Proc. Amer. Ent. Soc. ix. p. 187, f. 80.

Peronoscelis, Chaudoir, Etude Monogr. des Masoréides, &c. p. 56.

Chaudoir enumerated fifty-five species as belonging to the two genera which I here

reunite. They are distributed over the tropical and subtropical regions of America, Africa, and Asia (to the exclusion of Australia and oceanic islands). The genus *Peronoscelis* is founded on a character (paraglossæ not embracing the upper angles of the ligula) which is not supported by other points of structure or by facies, and, judging from Dr. Horn's dissections of *Tetragonoderus*, is not constant.

1. *Tetragonoderus sinuosus*.

Tetragonoderus sinuosus, Chaudoir, Et. Monogr. des Masor. &c. p. 44¹.

Hab. MEXICO, Cordova¹, Orizaba, Puebla (*Sallé*), Jalapa, Oaxaca (*Höge*).

2. *Tetragonoderus intermixtus*.

T. sinuoso proxime affinis, at differt thorace angustius cordato-quadrato, elytrisque magis variegatis. Elongato-ovatus, fusco-cupreus, antennis basi pedibusque pallide testaceis, his apud apices femorum, tibiæ et tarsorum leviter infuscatis; thorace subelongato-cordato, postice sat angustato, lateribus sinuatis angulis posticis paulo prominentibus acutis; supra plus-minusve transversim ruguloso; elytris punctulato-striatis, fasciis latis albo-testaceis duabus a stria prima usque ad marginem extensis, interspatio fusco-cupreo fascia tertia (minus pallida) interrupta, interstitia 2^m-6^m occupante.

Long. 1 $\frac{3}{4}$ lin.

Hab. MEXICO, Tehuacan (*Höge*); GUATEMALA (*Sallé*).

The pallid yellow belts of the elytra are much broader than in the most developed examples of *T. sinuosus*, although dentated on the edges in a similar way to that species. But *T. intermixtus* differs by having a third pale belt across the coppery-brown central interspace. This belt consists on each elytron of five linear spots, and causes the dark ground-colour of the elytra to appear as a dark margin to the basal and apical pale fasciæ.

3. *Tetragonoderus simplex*.

T. sinuoso simillimus, sed paulo gracilior elytrisque immaculatis. Fusco-cupreus, sericeo-nitens, antennis basi pedibusque testaceo-rufis; thorace late quadrato-cordato marginibus versus angulos posticos subrectos reflexis paullulum sinuatis; elytris subpunctulatim striatis.

Long. 2-2 $\frac{1}{2}$ lin.

Hab. GUATEMALA, near the city, San Gerónimo, Aceituno, Zapote (*Champion*).

4. *Tetragonoderus pœcilus*. (Tab. VII. fig. 7.)

Oblongus, nigro-æneus, antennis basi pedibusque rufo-testaceis; thorace fere ut in *T. subfasciato* transversim quadrato, angulis posticis valde obtusis sed distinctis, margine basali utrinque oblique arcuatim truncato usque ad angulum; elytris cupreo-fuscis, punctulato-striatis, interstitiis planis; fasciis latis duabus pallide fulvo-testaceis tertiaque intermedia paulo obscuriore; fascia prima interstitia 2^m-8^m occupante, lineolis apud interstitia 2^m, 4^m et 8^m brevibus, apud 5^m-7^m longissimis; fascia secunda e lineolis apud interstitia 2^m-6^m quarum tertia paulo elongata; fascia tertia extus supra interstitia 5^m-8^m latissima, supra 2^m-4^m angustissima.

Long. 3 $\frac{1}{2}$ lin.

Hab. MEXICO, Oaxaca (*Flohr*); GUATEMALA, San Gerónimo (*Champion*).

The first and second pale fasciæ approach each other very closely, leaving between them on the second to the fifth interstices only a small quadrate spot of the coppery-brown ground-colour.

5. *Tetragonoderus mexicanus*.

Peronoscelis mexicanus, Chaudoir, Etud. Monogr. des Masoréides, &c. p. 62.

Hab. MEXICO, Vera Cruz, Cordova (*Sallé*), Coatepec, Tehuacan (*Höge*); GUATEMALA, near the city, San Gerónimo, Rio Naranjo (*Champion*); NICARAGUA (*Sallé*).

Subfam. *NEMOTARSINÆ*.

The curious genus *Nemotarsus*, isolated from all other groups of Truncatipennes by its linear tarsi, pectinated claws, and the long spurs of its hinder tibiæ, requires a separate subfamily for its reception, at least until intermediate forms are discovered which may show in which direction lie its proximate affinities. Chaudoir placed it next to his Tetragonodérides, without including it in that group, its totally different facies and structural peculiarities evidently deterring him from incorporating it, notwithstanding the common feature of long hind-tibial spurs.

NEMOTARSUS.

Nemotarsus, Leconte, Trans. Amer. Phil. Soc. x. p. 377 (1853).

Nematotarsus, Chaudoir, Etude Monogr. des Masoréides, &c. p. 74.

Chaudoir described five species of *Nemotarsus* from Tropical America, and one (Leconte's type species) from California. Four of them are very feebly differentiated, and may very well prove to be varieties or local forms of Dejean's *N. fallax*. The following differ only from the latter in markings and very slightly in form, but, being represented by numerous individuals, seem deserving of separate names.

1. *Nemotarsus rhombifer*. (Tab. VII. fig. 8.)

Flavo-testaceus, thorace vittis medianis duabus, elytris que signatura communi \times -formis (ramis curvatis) literisque posterioribus (pallidioribus) cum ramis inferioribus præcedentis conjunctis et spatium commune rhomboidale flavum includentibus fusco-nigris; thorace latiusculo, lateribus rotundatis (postice rectis) angulis posticis modice elevatis; elytris striatis, interstitiis convexis postice planis.

Long. $2\frac{2}{3}$ lin. (5 millim.).

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Dueñas (*Salvin*).

2. *Nemotarsus limbicollis*.

N. rhombifero proxime affinis, differt solum thorace limbo (præcipue antice) fusco, disco immaculato.

Long. $2\frac{1}{2}$ lin.

Hab. MEXICO, Vera Cruz (*Sallé*), Jalapa (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

Similar in every respect to *N. rhombifer*, the thorax, as in that species, being broad, with sides nearly straight from the angles to near the apex, then broadly rounded to the neck, and the elytral interstices flattened towards the apex, and the black × mark being supplemented by posterior, less distinct, angular lines, which form with the × mark a rhomboidal pale spot; but the thorax lacks the two dorsal black vittæ, and has instead a brown vitta near the margin, generally limited to a short streak towards the neck.

3. *Nemotarsus fallax*.

Lebia fallax, Dejean, Sp. Gén. Col. v. p. 383.

Nematotarsus fallax, Chaudoir, Etude Monogr. des Masoréides, &c. p. 77¹.

Hab. PANAMA, David, Boquete (*Champion*).—SOUTH AMERICA, Colombia, Venezuela¹.

I refer doubtfully to this species specimens taken by Mr. Champion. In the form of the thorax, “de fort peu plus large à sa base que la tête avec les yeux,” they agree fairly well with Chaudoir’s description, *N. rhombifer* and *limbicollis* having a much wider thorax; but they differ in the markings of the elytra both from *N. fallax* as described and amongst themselves, the pattern being in one example nearly as in *N. rhombifer*, and in the other limited to two completed basal rings.

Subfam. MASOREINÆ.

A subfamily equivalent to the Masoréides of Chaudoir’s ‘Etude Monographique,’ which group, although differing widely in facies from the Tetragonoderinæ, with which it agrees in the long tibial spurs, the author considered to be linked to that subfamily by the genera *Ophryognathus* (unknown to me) and *Cyclosomus*. If similar connecting links should be discovered between all these small subfamilies of Truncatipennes having long hind tibial spurs (dissimilar as they are in other respects), they would doubtless be considered as constituting but one subfamily.

MASOREUS.

Masoreus, Dej. Sp. Gén. Col. iii. p. 536 (1828); Chaudoir, Etude Monogr. des Masoréides, p. 11.

Æphnidius, Macleay, Ann. Jav. p. 23 (1825).

Anaulacus, Macleay, *ibid.* p. 22.

Macracanthus, Chaudoir, Bull. Mosc. 1846, p. 539.

About twenty-five species of this genus have been described. It is represented in the tropical and warmer temperate zones of both hemispheres, including Australia. M. de Chaudoir treated the three genera entered above in the synonymy as subgenera with separate diagnoses, doubting their permanent generic unity. It was perhaps on this account that he did not change the name *Masoreus* for the prior one of *Æphnidius* or *Anaulacus*.

1. **Masoreus piceolus.**

Masoreus (*Æphnidius*) *piceolus*, Chaudoir, Etude Monogr. des Masoréides, &c. p. 22¹.

Hab. MEXICO, Yucatan (*Pilate*¹).—SOUTH AMERICA, Cayenne, Amazons¹.

2. **Masoreus unicolor.**

Masoreus (*Macracanthus*) *unicolor*, Chaudoir, Etude Monogr. des Masoréides, &c. p. 23¹.

Hab. NICARAGUA, Chontales (*Belt, Janson*).—SOUTH AMERICA, Amazons¹.

Subfam. *COPTODERINÆ*.

STENOGNATHUS.

Stenognathus, Chaudoir, Bull. Mosc. 1843, p. 421; Mém. s. l. Thyreoptérides et Coptodérides, p. 5.

Eight species have been described of this genus, peculiar to Tropical America. It clearly forms a connecting link between the Anchomeninæ and the Coptoderinæ, the adherent paraglossæ being almost its only distinguishing character.

1. **Stenognathus quadricollis.** (Tab. VII. fig. 9.)

Stenognathus quadricollis, Chaudoir, Mém. s. l. des Thyreopt. et Copt. p. 7¹.

Hab. MEXICO¹, Cordova, Playa Vicente, Cosamaloapam (*Sallé*); GUATEMALA, Sinanja (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

The single example from Chiriqui differs somewhat from Mexican specimens in the form of the thorax, which is a little less square, *i. e.* more narrowed anteriorly and posteriorly. It seems to approach *S. platypterus*, Chaud.; but Guatemala examples are intermediate in this respect.

2. **Stenognathus batesi.**

Stenognathus batesi, Chaudoir, Bull. Mosc. 1877, i. p. 198¹.

Hab. NICARAGUA, Chontales¹ (*Belt*); PANAMA, Volcan de Chiriqui (*Champion*).

PHLÆOTHERATES.

Phlæotherates, Bates, Ent. Monthl. Mag. vi. p. 76 (Sept. 1869); Compte Rendu Soc. Ent. Belg. No. 45, 5 Mars 1870.

Ferus, Chaudoir, Mém. s. l. des Thyreopt. &c. p. 9 (Ann. Soc. Ent. Belg. xii. 1869).

Three species of *Phlæotherates* are known, all Tropical American. According to the editors of the 'Annales' of the Belgian Entomological Society, the name *Phlæotherates* has the priority by a few weeks over that of *Ferus*.

1. *Phlæotherates quadricollis*.

Ferus quadricollis, Chaudoir, Monogr. des Thyreopt. &c. p. 121¹.

Hab. MEXICO¹, Cordova (*Sallé*); NICARAGUA, Chontales (*Janson*); PANAMA, Volcan de Chiriqui (*Champion*).

OCHROPISUS.

Parvus. Caput ovatum pone oculos nec depressum nec sulcatum. Oculi modice prominentes. Labrum quadratum. Palpi apice subacuminati, maxillarium articulo penultimo brevissimo. Ligula quadrata, paraglossæ latæ, membranaceæ, ligulam haud superantes. Mentum medio dentatum. Thorax quadratus, medio basi late sublobatus. Elytra oblonga subdepressa, apice ut in gen. *Phlæotherate* sinuato-truncata. Pedes graciles, tibiæ extus canaliculatæ, posteriores sparsim tenuiter setosæ; unguiculi graciles, subrecti, acute serrati.

Allied to *Phlæotherates*, but differing much in facies, in the eyes being scarcely prominent, and in the head being destitute of the transverse depression which characterizes *Phlæotherates* and allied genera. The hinder tibiæ have a fine groove on their outer edge; and the claws are finely serrated.

1. *Ochropisus caudalis*. (Tab. VII. fig. 10.)

Rufescenti-fuscus, antennis basi, palpis pedibus maginibusque thoracis et elytrorum pallidioribus, elytris fascia lata apicali (antice medio utrinque indentata) flavo-testacea; capite lævi; thorace quadrato, medio paululum rotundato, margine antico arcuato, postico medio late sublobato, angulis posticis rectis, margine laterali paullo explanato et ruguloso; elytris humeris latis, punctulato-striatis, interstitiis planissimis basin versus punctulatis, tertio tripunctato.

Long. 2½ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

2. *Ochropisus bembidioides*.

Minor, castaneo-fuscus, palpis, antennis, pedibus elytris que fascia lata apicali (antice medio emarginata versus latera valde dilatata) maculaque magna utrinque humerali fulvo-testaceis; thorace fere ut in *O. caudali*; elytris profundius striatis, striis punctulatis, interstitiis subconvexis versus basin punctulatis, tertio tripunctato.

Long 1¾ lin.

Hab. PANAMA, Bugaba (*Champion*).

PHLÆOXENA.

Phlæoxena, Chaudoir, Mém. s. l. Thyreopt. &c. p. 35.

A genus peculiar, with the exception of a species found in Mauritius, to America, ranging from New Granada to the Southern States of North America, but the headquarters being in Mexico. Ten species have been described.

1. *Phlæoxena picta*.

Phlæoxena picta, Chaudoir, loc. cit. p. 35¹.

Hab. MEXICO¹, Cordova (*Sallé*), Las Vigas, Jalapa (*Höge*).

2. *Phlæoxena graphiptera*.

Phlæoxena graphiptera, Chaudoir, loc. cit. p. 37¹.

Hab. MEXICO¹, Cordova (*Sallé*), Oaxaca (*Höge*); GUATEMALA, Tamahu, Chiacaman, San Juan (*Champion*); NICARAGUA, Chontales (*Belt*).

Var. Elytra fere sicut in *P. undata*, interstitiis convexis, sed signaturis anteriore normali, posteriore pluri-undulata, thoraceque angusto.

Hab. GUATEMALA, San Gerónimo (*Champion*).

3. *Phlæoxena undata*.

Phlæoxena undata, Chaudoir, loc. cit. p. 37¹.

Hab. MEXICO¹, Cordova (*Sallé*).

4. *Phlæoxena unicolor*.

Phlæoxena unicolor, Chaudoir, loc. cit. p. 38¹.

Hab. MEXICO (*Deyrolle*¹).

5. *Phlæoxena megalops*. (Tab. VII. fig. 11.)

P. undatæ similis, sed differt capite latiore oculisque magnis prominentibus; quam *P. picta* magis oblonga, nigra velutina opaca, antennis articulis 3 basalibus pedibusque (tibiis extus fuscis exceptis) rufo-testaceis; elytris fasciis valde undulatis duabus (medio apud suturam conjunctis) marginem attingentibus, anteriore sine lineis curvatis, fulvis; thorace fere sicut in *P. undata* late cordato postice valde sinuato-angustato, angulis acutis, toto nigro; elytris interstitiis plus minusve convexis.

Long. $2\frac{1}{3}$ lin. (5 millim.).

Hab. GUATEMALA, Cerro Zunil (*Champion*).

Var. P. chiriquina: differt thorace fulvo nigro-maculato, signaturisque elytrorum anterioribus in fasciam latam congestis; antennis omnino fulvis.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

This species bridges over the difference between the *Phlæoxenæ typicæ* and the *P. spuricæ* of Chaudoir, the head being nearly as broad and the eyes as voluminous as in *P. geniculata* of the latter section.

6. *Phlæoxena signata*.

Coptodera signata, Dej. Sp. Gén. Col. i. p. 275¹.

Phlæoxena signata, Chaudoir, Mém. s. l. Thyréopt. &c. p. 40².

Hab. NORTH AMERICA, Southern States^{1 2}.—GUATEMALA, near the city, Capetillo, Zapote, San Gerónimo, Mirandilla (*Champion*).

Compared with a specimen of *P. signata* from South Carolina, I find no constant difference between it and the Guatemala insect which Mr. Champion has sent home in abundance, the convexity of the elytral interstices and the width and shape of the

yellow belts being nearly the same. But in some of the Guatemala specimens a marked peculiarity is apparent, viz. a shallow alveolate punctuation of the striæ, visible only when the elytra are viewed vertically under a powerful lens. This character is not, however, sufficiently constant to warrant its being treated as of specific value.

7. *Phlæoxena högei*. (Tab. VII. fig. 12.)

P. signata proxime affinis et similis, sed differt thorace rufo-testaceo immaculato, elytrorumque fasciis flavis latissimis haud undulatis apiceque absque nebula fusca; thorace lateribus latius rotundatis; elytris regulariter et late haud profunde sulcatis sulcis alveolatis, interstitiis angustis parum convexis.

Long. $2\frac{1}{4}$ – $2\frac{3}{4}$ lin.

Hab. MEXICO, Mirador, Jalapa (*Höge*).

The yellow belts of the elytra in this distinct species occupy a much greater surface than the black; so that the ground-colour may be said to be testaceous yellow, and the black limited to a triangular spot in the scutellar region, and a broad belt, transverse and with almost straight edges, a little behind the middle, joined to the scutellar spot by a narrowish black sutural border.

8. *Phlæoxena geniculata*.

Phlæoxena geniculata, Chaudoir, Mém. s. l. Thyréopt. p. 41¹.

Hab. MEXICO, Cuernavaca (*Boucard*¹), Yolos (*Sallé*).

CATASCOPIUS.

Catascopus, Kirby, Trans. Linn. Soc. xiv. p. 94 (1825); Chaudoir, Berl. ent. Zeitschr. 1861, p. 116.

A fine genus, distributed over the tropical regions of both hemispheres, but most numerous in the Malayan region of the Old World. Tropical Australia, Africa, and America have a much smaller number of species, less varied in form and colours. Between sixty and seventy species have been described.

1. *Catascopus validus*.

Catascopus validus, Chaudoir, Bull. Mosc. 1854, i. p. 131¹.

Hab. MEXICO, Orizaba¹, Cordova (*Sallé*), Jalapa (*Höge*).

2. *Catascopus guatemalensis*. (Tab. VII. fig. 13.)

C. valido quam maxime affinis, sed differt elytris politis (minime sericeo-nitentibus) distincte punctato-striatis, coloreque æneo-vel cyaneo-viridibus; interstitio tertio 6-punctato.

Long. 7–8 lin.

Hab. GUATEMALA, Capetillo, Cerro Zunil, Panajachel (*Champion*).

Similar in form to *C. validus*, the head prolonged, gradually and straightly narrowed behind the eyes, and the thorax with much produced anterior angles, but distinct in its elytra having a more metallic lustre (in the males), the alutaceous sculpture being

scarcely perceptible under a powerful lens, and in the striæ being regularly impressed and throughout conspicuously punctured.

3. *Catascopus obscuriviridis*.

Catascopus obscuriviridis, Chevrolat, Col. Mex. ii. no. 186¹.

Hab. MEXICO¹, Cordova (*Sallé*).

According to examples in the Sallé collection, this is a species of narrow form and bright olive-green colour (slightly sericeous on the elytra, but becoming brighter and more golden near the apex), with the head much shorter and more rapidly narrowed (in incurved lines) behind than in *C. validus*, and correspondingly more prominent eyes. The thorax has advanced angles, as in *C. validus*; but they are broader at their apex, and the posterior angles are much more salient, the sides before the angles being sinuated. The elytral interstices are nearly flat, and the striæ regularly, though slightly, impressed and punctulate. The third interstice has only three punctures.

The following is possibly the same species, as it agrees in all points which are intelligible in the description, except the hind angles of the thorax, which are said to be not at all prominent.

4. *Catascopus mexicanus*.

Catascopus mexicanus, Chaudoir, Bull. Mosc. 1877, i. p. 201¹.

Hab. MEXICO (*Boucard*¹).

5. *Catascopus chontalensis*.

Catascopus chontalensis, Bates, Proc. Zool. Soc. 1878, p. 605¹.

“Supra læte viridi-æneus, elytrorum limbo aurato, pectore et pedibus nigro-piceis, abdomine castaneo; capite post oculos gradatim modice angustato, sed haud elongato, oculis valde exstantibus; thorace transverso vel late cordato, angulis anticis modice productis, margine exteriori late explanato et valde rotundato usque ad summum angulum, postice sinuatim angustato, angulis posticis exstantibus acutis; elytris punctato striatis, interstitiis vix convexis.

“Long. 6 lin.”

Hab. NICARAGUA, Chontales (*Belt, Janson*)¹.

A larger and much broader insect in all its parts than *C. obscuriviridis*, with the anterior angles of the thorax still less advanced, and forming lobes much more rounded exteriorly.

6. *Catascopus angulicollis*. (Tab. VII. fig. 14.)

Catascopus angulicollis, Bates, Proc. Zool. Soc. 1878, p. 605¹.

“Supra viridi-æneus, corpore subtus pedibusque nigro-vel rufo-piceis, abdomine castaneo; capite mox pone oculos subito angustato; thorace subquadrato, angulis anticis angustis prominulis, margine explanato laterali angusto, ante medium angulato, postice sinuatim angustato, angulis posticis prominulis acutis,

supra distinctius, transversim strigato, margine explanato grosse punctato; elytris punctato-striatis, interstitiis paullulum convexis.

“Long. 6 lin.”

Hab. MEXICO, Jalapa (*Höge*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Zapote (*Champion*); NICARAGUA, Chontales (*Belt*¹).

Distinguished from all the other species by the form of the thorax, which has a small dentiform projection before the middle, the sides thence to the narrow anterior angle being straight.

COPTODERA.

Coptodera, Dejean, Sp. Gén. Col. i. p. 273; Chaudoir, Mém. s. l. Thyréopt. &c. p. 53; Bates, Ent. Monthly Mag. vi. p. 71 (1869).

Similar in its distribution to *Catascopus*, but relatively more numerous in America, and found also in South Africa, Madagascar, and Japan. About sixty species have been described.

1. *Coptodera variegata*.

Coptodera variegata, Chaudoir, Mém. s. l. Thyréopt. &c. p. 58¹.

Hab. MEXICO¹, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA, Cerro Zunil (*Champion*).

2. *Coptodera aurata*.

Coptodera aurata, Chevrolat, Col. du Mex. ii. no. 162¹; Chaudoir, Mém. s. l. Thyréopt. &c. p. 59².

Catascopus auratus, Mannerheim, Bull. Mosc. 1837, ii. p. 47.

Hab. MEXICO^{1,2}, Cordova, Playa Vicente, Cosamaloapam (*Sallé*), Bobo, Almolonga (*Höge*); GUATEMALA, Las Mercedes, El Tumbador, Pantaleon (*Champion*).

3. *Coptodera elongata*. (Tab. VII. fig. 15.)

Coptodera elongata, Putzeys, Mém. Soc. Roy. des Sci. de Liège, 1864, ii. p. 395; Chaudoir, Mém. s. l. Thyréopt. &c. p. 60¹.

Hab. MEXICO¹, Cordova, Chinantla (*Sallé*), Misantla, Jalapa (*Höge*); GUATEMALA, Cerro Zunil (*Champion*).

4. *Coptodera schauumi*.

Coptodera schauumi, Chaudoir, Mém. s. l. Thyréopt. &c. p. 61 (1869)¹.

Pericallus bifasciatus, Schaum, Berl. ent. Zeitsch. 1860, p. 191² (nom. præocc.).

Hab. NICARAGUA, Chontales (*Belt, Janson*); COSTA RICA¹ (*Wagner*²); PANAMA, Volcan de Chiriqui (*Champion*).

5. *Coptodera championi*.

C. elongatæ similis, sed minor, supra omnino cuprea nitida, marginibus, antennarum basi labroque viridi-æneis; corpore subtus et femoribus cyaneis; elytris apice utrinque quadrispinosis, subtiliter punctato-striatis

interstitiis (regione scutellari et spatio suturali post medium exceptis) valde convexis, signaturis flavis sicut in *C. elongata*; thorace angustius cordato-quadrato, lateribus valde sinuatis postice elevatis, angulis rectis.

Long. 4–5½ lin.

Hab. PANAMA, Bugaba (*Champion*).

Similar in form and colours on the upper surface to *C. elongata*, and presenting the same arrangement of yellow lineoles on the elytra, the fourth interstice in the anterior belt having two detached lineoles, one much behind the other. It differs, however, very greatly in the spinose angles of the truncature of the elytra, which are as strongly developed as in *C. megalops*, and also in the bright cyaneous colour of the whole under surface and femora. The sculpture of the elytra differs from that of all the allied species, in the strong contrast between the sulcated and the smooth portions—a space round the scutellum, and an area over the suture, a little behind the middle, being almost entirely smooth, whilst over the rest of the surface the striæ are deeply sunk in wide grooves, or, as may be otherwise expressed, the interstices elevated. The sides of the forehead are multistrigose, nearly as in *C. elongata*.

6. *Coptodera scintillans*.

Coptodera scintillans, Bates, Proc. Zool. Soc. 1878, p. 604¹.

“*C. acutipenni* (Buq.) affinis. Elongato-oblonga, supra capite thoraceque aurato-viridibus politissimis, elytris aurato-cupreis; partibus oris, epistomate, antennis, corpore subtus pedibusque fulvo-testaceis, tibiis obscuris; thorace valde transverso, lateribus rotundatis nullo modo angulatis, margine late elevato-explanato, impunctato; elytris amplis, truncaturæ angulis acutis sed non ut in *C. acutipenni* productis, subtiliter punctato-striatis, striis vix impressis, interstitiis planis.

“Long. 5 lin.”

Hab. NICARAGUA, Chontales (*Belt*)¹.

I have seen only one example of this distinct species.

7. *Coptodera acutipennis*.

Lebia acutipennis, Buquet, Ann. Soc. Ent. Fr. 1834, p. 674¹.

Coptodera acutipennis, Chaudoir, Mém. s. l. Thyréopt. &c. p. 66².

Coptodera spinipennis, Bates, Ent. Monthly Mag. vi. (1869) p. 75³.

Hab. GUATEMALA, Zapote (*Champion*).—SOUTH AMERICA, Cayenne¹, Amazons^{2 3}.

A single specimen of this rare species, taken by Mr. Champion, is not specifically distinguishable from Amazons examples. It is a little less brilliant in colour.

8. *Coptodera unicolor*.

Coptodera unicolor, Chevrolat, Col. Mex. i. fasc. 2 (1834)¹; Chaudoir, Mém. s. l. Thyréopt. &c. p. 68.

Coptodera obscura, Castelnau, Etud. Entom. p. 51 (1835).

Hab. MEXICO¹, Cordova, Tuxtla, Playa Vicente (*Sallé*), Cerro de Plumas, Oaxaca

(*Höge*); GUATEMALA, Chiacam, Panzos, Chacoj (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui (*Champion*).

Differs very slightly from the widely distributed South-American *C. picea*, having the elytra a little broader posteriorly, and the colour being generally darker. It cannot be more than a northern form of that species.

9. *Coptodera chloris*.

C. tripartita affinis, sed magis elongato-oblonga, signaturisque dissimilibus. *C. lebioidi* proximior, signaturis simillimis sed striis minus distincte punctatis; major et magis oblonga, elytris saturatius nigro-vel olivaceo-viridibus; thorace valde transverso, quam in *C. tripartita* latiore, angulis posticis obtusis fere rotundatis; elytris haud profunde striatis interstitiis fere planis, nitidis, margine et fasciis duabus flavis; fascia prima extus angustata, lineolis apud interstitia 7^m et 8^m brevissimis, apud interstitia 4^m et 6^m elongatis præcipue postice prolongatis; vertice et thoracis disco interdum fusco-maculatis.

Long. $2\frac{3}{4}$ – $3\frac{1}{2}$ lin.

Hab. MEXICO, Mirador (*Höge, Flohr*).

Belongs to a difficult group of species, of which *C. tripartita* is the type. From *C. tripartita* it is distinguishable at once by the lineole of the first fascia on the fourth interstice being much prolonged behind, the same lineole in *C. tripartita* being much abbreviated posteriorly. In this respect it agrees with *C. lebioides*, a smaller insect from the Amazons and Ecuador (2 – $2\frac{3}{4}$ lin.), to which I hesitate to refer it on account of its different facies, due to the more oblong form of its elytra, less conspicuously punctured striæ, and darker green, less æneous, colour.

10. *Coptodera flavodisca*. (Tab. VII. fig. 16.)

Coptodera flavodisca, Chaudoir, Mém. s. l. Thyréopt. p. 77¹.

Hab. GUATEMALA, San Gerónimo, El Tumbador, Zapote, Balheu (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).—SOUTH AMERICA, Amazons¹.

The extent of the yellow oval spot in the common centre of the elytra varies, diminishing, but not regularly, with the distance from the equator; thus in Panama the type form occurs in company with a variety in which the yellow spot is reduced to a stripe not extending beyond the fourth striæ, whilst at Chontales only the type form seems to occur, and in Guatemala the type form is altogether absent, and the spot is lessened, as in the Panama variety, or disappears altogether. The extreme unicolorous variety has so distinct a facies that it is convenient to give it a separate name and mention.

Var. *C. immaculipennis*. Elytra unicoloria, magis olivaceo-ænea, interdum disco obscure rufescens, marginibus pallidis.

Hab. MEXICO, Cerro de Plumas (*Höge*); GUATEMALA, San Gerónimo, San Joaquim, Tamahu, Balheu (*Champion*).

C. flavodisca may be distinguished in all its varieties by having two fine subparallel plicæ (with some more irregular lines) on each side of the forehead close to the eye.

11. *Coptodera pœcila*. (Tab. VII. fig. 18.)

Subovata, convexa, rufo-testacea, palpis (apicibus exceptis), antennarum articulis 3^o et 4^o, genibus et tibiis fusco-nigris; elytris nigro-æneis plaga magna discoidea communi marginibus multosinuatis, medio nigro-æneo maculata, flavo-testacea; antennis brevibus robustis; capite (foveis exceptis) lævi; thorace valde transverso, lateribus medio paullulum rotundatis, angulis posticis rectis; elytris striato-punctulatis, interstitiis planissimis.

Long. $2\frac{1}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

A single example, which appears to belong to *Coptodera* rather than to *Lelis*, the tarsal claws being slender and feebly denticulate. The elytra have a peculiar and elegant pattern, the usual yellow belts being fused into one large discoidal patch, which is indented and spotted with the blackish-æneous ground-colour. There is a large quadrate sutural spot in the middle, united to the basal border by a narrow sutural line, and a small roundish spot on the disk on each side; and the irregularities of the margin of the yellow area consist, on its anterior margin of an indentation in the middle, on the posterior margin of two on each side; laterally the yellow indents the dark border in two broadish lobes. The striæ are scarcely at all impressed; and the elytra are, for this genus, unusually convex.

12. *Coptodera cupreotincta*. (Tab. VII. fig. 17.)

Coptodera cupreotincta, Bates, Ent. Monthly Mag. vi. (1869) p. 73¹.

Coptodera amazonica, Chaudoir, Mém. s. l. Thyréopt. &c. p. 90².

Hab. NICARAGUA, Chontales (*Belt*); PANAMA, Volcan de Chiriqui, David, Bugaba (*Champion*).

Chontales specimens differ in no respect from others from the Amazons, except in the darker metallic colour of disk of head and thorax; but Panama examples are all larger and relatively longer. All, however, agree in having a long yellow line on the eighth interstice in the anterior fascia.

13. *Coptodera tessellata*.

Coptodera tessellata, Chaudoir, Mém. s. l. Thyréopt. &c. p. 89¹.

Hab. MEXICO (*Haag de Rutenberg*¹).—SOUTH AMERICA, Brazil?¹.

According to the author, differs from *cupreotincta* (*amazonica*) only in being larger and in wanting the yellow lines on the eighth interstice. Without the latter feature I should have had no hesitation in referring the species to the Central-American form of *cupreotincta*.

STENOGLOSSA.

Stenoglossa, Chaudoir, Bull. Mosc. 1848, i. p. 117; id. Mém. s. l. Thyréopt. p. 91.

This genus, closely allied to *Coptodera*, is exclusively Tropical American. Seven species have been described.

1. *Stenoglossa picturata*.

Stenoglossa picturata, Chaudoir, Mém. s. l. Thyréopt. &c. p. 95¹.

Hab. MEXICO¹, Jacalé (*Sallé*), Almolonga, Oaxaca (*Höge*); GUATEMALA, Purula (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

2. *Stenoglossa transversa*.

Tetragonoderus transversus, Reiche, Rev. Zool. 1843, p. 179¹.

Stenoglossa transversa, Chaudoir, Mém. s. l. Thyréopt. &c. p. 94².

Stenoglossa atriceps, Bates, Ent. Monthly Mag. vi. p. 78 (1869)³.

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).—SOUTH AMERICA, Colombia^{1 2}, Amazons^{2 3}.

Extremely near *S. picturata*; but the thorax and elytra are of a clearer yellow, and the black markings narrower and more sharply defined. But some examples from Chiriqui are intermediate in these respects. I can perceive no difference of any value between this species and *S. undulata*, Chaud., from South Brazil.

3. *Stenoglossa nigrostriata*.

Tetragonoderus nigrostriatus, Reiche, Rev. Zool. 1843, p. 179¹.

Stenoglossa nigrostriata, Chaudoir, Mém. s. l. Thyréopt. &c. p. 93².

Dromius multiguttatus, Putzeys, Mém. Soc. R. de Liège, ii. p. 377 (1846)³.

Stenoglossa variegata, Chaudoir, Bull. Mosc. 1848, i. p. 117⁴.

Stenoglossa pallida, Bates, Ent. Monthly Mag. vi. (1867) p. 78⁵.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia², Venezuela^{1 3 4}, Amazons^{2 5}.

4. *Stenoglossa lineata*. (Tab. VII. fig. 21.)

S. nigrostriata simillima, elytris eodem modo fusco-striatis sed fascia nigra transversa prope suturam paullo latiore et fortius undulata guttulisque ante fasciam duabus (tertia ad interstitium 3^m prope fasciam deficiente). Minor, elytris præcipue relative brevioribus, flava (vertice sæpe infuscata), elytrorum striis fascia valde undulata, basi (anguste) maculis marginalibus, guttulis duabus antice discoidalibus, apiceque striarum nigro-fuscis; antennis, palpis et pedibus pallidis immaculatis.

Long. 1½–2 lin.

Hab. MEXICO, Almolonga, Cerro de Plumas (*Höge*); GUATEMALA, Chacoj, Zapote, Las Mercedes, Pantaleon (*Champion*); NICARAGUA, Chontales (*Janson*); PANAMA, Bugaba (*Champion*).

LELIS.

Lelis, Chaudoir, Mém. s. l. Thyréopt. &c. p. 121.

Eight species of this exclusively Tropical-American genus have been described.

1. *Lelis bicolor*.

Lelis bicolor, Chaudoir, loc. cit. p. 121¹.

Hab. MEXICO¹, Playa Vicente, Cosamaloapam (*Sallé*).

2. *Lelis rufipes*.

Lelis rufipes, Chaudoir, Bull. Mosc. 1877, i. p. 201¹.

Hab. NICARAGUA¹, Chontales (*Belt, Janson*).

3. *Lelis insculpta*. (Tab. VII. fig. 22.)

A cæteris speciebus viridibus hujus generis differt elytrorum striis fortius punctatis interstitiisque convexis. Testaceo-rufa, nitida, elytris læte viridi-æneis margine laterali angustissime rufescente epipleuris que nigris; capite thoracque ut in *L. rufipede* oculis prominentibus; thorace transverso, margine laterali explanato-reflexo medio subangulato etc.; elytris apice apud suturam minus productis haud subdentatis.

Long. 3–4 lin.

Hab. PANAMA, Bugaba (*Champion*).

EURYCOLEUS.

Eurycoleus, Chaudoir, Bull. Mosc. 1848, i. p. 124; Mém. s. l. Thyréopt. &c. p. 125.

Like the preceding, this handsome genus is peculiar to Tropical America. Six species have so far been described.

1. *Eurycoleus macularius*.

Lebia macularia, Chevrolat, Col. Mex. ii. no. 131 (1835)¹.

Eurycoleus macularius, Chaudoir, Mém. s. l. Thyréopt. &c. p. 127.

Hab. MEXICO¹, Cordova (*Sallé, Höge*), Tuxtla (*Sallé*); GUATEMALA, Panzos (*Champion*); NICARAGUA, Chontales (*Belt, Janson*).

2. *Eurycoleus fasciato-punctatus*.

Coptodera fasciato-punctata, Reiche, Rev. Zool. 1842, p. 313¹.

Eurycoleus fasciato-punctatus, Chaudoir, Mém. s. l. Thyréopt. &c. p. 126; Lacordaire, Gen. Col. Atlas, t. iv. f. 2.

Hab. NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia¹.

The differences pointed out by Chaudoir with regard to the shape and position of the black spots between this species and the preceding do not hold good when a large

series is examined. *E. fasciato-punctatus*, however, always has the humeral spot larger and less virguliform, and the accessory marginal spot near it is always absent.

3. *Eurycoleus belti*. (Tab. VII. fig. 19.)

Eurycoleus belti, Bates, Proc. Zool. Soc. 1878, p. 606¹.

"*E. 13-punctato* (Chaud.) proxime affinis, differt maculis paucioribus magnitudineque æqualibus. Latus, ovatus, testaceo-rufus; elytris flavo-testaceis, maculis utrinque 7 margineque subapicali nigris; antennis rufescentibus, articulis 1° (apice) et 2°-4^m, palpis (apice excepto), femoribus apice, tibiis et tarsis nigris; elytrorum maculis 3 suturalibus (apicali communi antice dilatata), 1 subhumerali, 2 medianis, 1 rotunda subapicali a margine laterali longe separata.

"Long. 5 lin."

Hab. MEXICO, Cerro de Plumas (*Höge*), Tehuantepec (*Sumichrast*); GUATEMALA, Zapote (*Champion*); NICARAGUA, Chontales (*Belt*¹).

4. *Eurycoleus octosignatus*.

E. belti affinis, sed differt thorace et elytris anguste nigro-marginatis, his maculis rotundatis subæqualibus octo, scilicet duabus communibus ad suturam tribusque utrinque discoidalibus in linea dispositis (prima marginem basalem attingente); antennis rufescentibus, articulis 3° et 4° fuscis; thorace sicut in *E. belti* transversim striguloso; elytris multo lævioribus absque interstitiis elevatis; genibus, tibiis tarsisque nigris, his apice rufis.

Long. 4 $\frac{3}{4}$ lin.

Hab. MEXICO, Tehuantepec (*Sumichrast*).

5. *Eurycoleus ornatus*. (Tab. VII. fig. 20.)

E. octosignato affinis, sed differt thorace et elytris latius nigro marginatis, his novemmaculatis, scilicet tribus suturalibus (tertia apicali) tribusque utrinque discoidalibus (quarum secunda multo major extus dilatata et cum margine confluens, tertiaque ante apicem parva rotundata); antennis basi obscurioribus, articulo 1° subtus tantum rufescente; elytrorum interstitiis paullulum elevatis.

Long. 5 $\frac{1}{2}$ lin.

Hab. MEXICO, Cordova (*Sallé*).

One example only.

Subfam. CYMINDINÆ.

This subfamily was first treated as a separate group of Truncatipennes by Baron Chaudoir, who described its component genera and species in two monographic works in his usual masterly style. He neglected, however, to define it, and we are left to gather from his generic characters the points, if any, in which it differs from the allied groups of the same rank. These seem to be the simple penultimate joint of the tarsi, short tibial spurs, pectinated or serrated claws, truncated (often in male securiform) apical joint of labial palpi, paraglossæ adherent to the sides, but never surrounding the apex of the ligula, and unlengthened labrum. The occurrence of numerous species in the subfamily with the middle as well as the anterior male tarsi dilated and squamulated beneath shows clearly that the Cymindinæ form a subtype quite distinct from the Lebiinæ, with which Lacordaire and Schaum combined them.

PINACODERA.

Pinacodera, Schaum, Naturg. der Ins. Deutsch. i. p. 294 (1860); Chaudoir, Bull. Mosc. 1875.

Planesus, Motschulsky, Bull. Mosc. 1864, ii. p. 240.

A genus apparently restricted to North America, and nearly equally well represented in temperate as in tropical latitudes. It is of rare occurrence south of Mexico. Nine species have been described.

1. **Pinacodera atrata.** (*Pinacodera amblygona*, Tab. VIII. fig. 3.)

Cymindis atrata, Chevrolat, Col. Mex. ii. no. 152 (1835)¹.

Cymindis nigrita, Chaudoir, Bull. Mosc. 1837, vii. p. 6.

Pinacodera nigrita, Chaudoir, ibid. 1875².

Var. *amblygona*, Bates, Proc. Zool. Soc. 1878, p. 606³.

Var. *angulifera*, Bates, ibid. p. 606⁴.

Hab. MEXICO^{3 4}, Cruz Blanca^{1 2}, San Andres, Puebla, Capulalpam (*Sallé*), Guanajuato (*Dugès*, coll. *Sallé*), Mexico city (*Sallé*, *Flohr*), San Angel (*Flohr*), Jalapa, Tehuacan (*Höge*).

Exceedingly variable in outline and sculpture of the thorax, and in the punctuation and convexity of the elytral interstices. *P. amblygona* represents the extreme form with respect to the obtuseness and smoothness of surface of the thorax, some examples having this part so much narrowed behind, and the hind angles so perfectly rounded off, that they present all the appearance of a distinct species. In Herr Höge's series from Tehuacan, however, there are all the intermediate variations; so that even the definition of the form as a variety is impossible. In some female examples the interstices are remarkably flat and obsoletely punctured, besides being subopaque with the fine articulation which distinguishes the females of so many species in the Anchomeninæ and other subfamilies. In other examples the flattened and reflexed margins of the thorax are rufescent.

2. **Pinacodera chalcea.** (Tab. VII. fig. 23.)

Lator, subdepressa, toto corpore dense erecte piloso, castaneo-rufo, thorace disco æneo-nitido, elytris (epipleuris marginibusque angustis exceptis) olivaceo-viridi-æneis nitidis; capitis lateribus grosse punctatis, juxta oculos rugulosis; oculis sat prominentibus, capite post oculos subabrupte angustato, collo constricto lævi; thorace paullo transverso, lateribus rotundatis, antice citius quam postice angustato, angulis posticis obtusis, margine basali medio late sed minime producto, toto dorso (marginibus inclusis) grosse punctato; elytris latis, apice oblique et valde sinuato, prope suturam recte transverso, angulo suturali subdentato, dorso plano punctato-striato, interstitiis passim subcrebre punctatis; unguibus dilatatis pectinatis.

Long. $4\frac{1}{2}$ lin.

Hab. GUATEMALA, Capetillo (*Champion*).

Nearest allied to *P. cribrata*, but a broader insect, with elytral interstices less numerous but more strongly punctured, and the apex of the elytra much more

strongly and obliquely sinuated. In form and punctuation evidently similar to *P. latiuscula*, but distinct in the metallic coloration of the elytra.

3. **Pinacodera cribrata.** (Tab. VIII. fig. 1.)

Pinacodera cribrata, Chaudoir, Bull. Mosc. 1875¹.

Hab. MEXICO, Vera Cruz¹, Orizaba, Capulalpam, Juquila (*Sallé*), Guanajuato (*Dugès*, coll. *Sallé*), Jalapa, Tehuacan (*Höge*); GUATEMALA, San Gerónimo, Balheu, Chiacam (*Champion*).

4. **Pinacodera latiuscula.**

Pinacodera latiuscula, Chaudoir, Bull. Mosc. 1875¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

I have not seen this species.

5. **Pinacodera basipunctata.**

Pinacodera basipunctata, Chaudoir, Bull. Mosc. 1875¹.

Hab. MEXICO¹, Jalapa (*Höge*); GUATEMALA, San Gerónimo, Cerro Zunil (*Champion*).

CYMINDIS.

Cymindis, Latreille, Gen. Crust. et Ins. i. p. 190; Chaudoir, Berl. ent. Zeitschr. 1873, p. 57.

Tarus, Clairville, Entom. Helv. ii. p. 94.

An extensive genus, consisting of about 100 described species, peculiar, as far as at present known, to the north temperate zone, but more abundant and varied in species in the Old World, especially in the Mediterranean region, than in North America. It has not yet been recorded from so far south as Mexico.

1. **Cymindis** — ?

Hab. MEXICO, Ciudad, province Durango (*Forrer*).

Mr. Forrer has sent only one, apparently immature, example of this *Cymindis*. It is possibly one of the numerous already described North-American species allied to *C. cribricollis*, Dej.; and its determination is impossible without further examples.

APENES.

Apenes, Leconte, Ann. Lyc. N. York, v. p. 174 (1851); Chaudoir, Bull. Mosc. 1875, p. 21.

Didymochæta, Chaudoir, ibid. p. 50.

Malisus, Motschulsky, Bull. Mosc. 1864, ii. p. 240; Chaudoir, Bull. Mosc. 1875, p. 22.

Peculiar to the American continent, occurring in temperate as well as tropical

latitudes. Thirty-eight species have been described. *Didymochæta* and *Malisus* form sections of the genus founded on slight characters, the latter on general form and facies, the former on the narrower ligula and tooth of mentum.

1. **Apenes pallidipes.** (Tab. VII. fig. 24.)

Cymindis pallidipes, Chevrolat, Col. Mex. ii. no. 153¹.

Apenes mexicana, Chaudoir, Bull. Mosc. 1875, ii. p. 25.

Apenes marginipennis, Chaudoir, *ibid.*²

Hab. MEXICO, Toxpam¹, Orizaba (*Sallé*), Jalapa, Las Vigas, Tuzumapa (*Höge*), Yucatan² (*Sallé*); GUATEMALA, near the city (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

The differences given by Chaudoir, on the examination of one specimen only of each, as justifying the separation of *A. marginipennis* from *A. pallidipes* do not hold good when a large series is examined. In form there are slight variations which do not correspond with differences of markings; and the absence of the subapical macular fascia (a character of *A. marginipennis*) is seen in many Mexican examples found at Jalapa and elsewhere, where specimens with a rudimentary and others with a well-developed fascia occur. Further south in Guatemala and Chiriqui all the examples have the fascia; and these differ in scarcely any thing but the blacker knees from the Venezuelan *A. quadripunctata* and the West-India *A. variegata*, Dej.

The last-mentioned species is said to be the *A. pallipes* of Fabricius, described as from "America, coll. Hunter." But the Fabrician description does not fit the insect, and is vague and worthless.

2. **Apenes brevivittis.**

Apenes brevivittis, Chaudoir, Bull. Mosc. 1875, ii. p. 26¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

3. **Apenes circumcincta.** (Tab. VIII. fig. 4.)

Apenes circumcincta, Chaudoir, Bull. Mosc. 1875, ii. p. 29¹.

Hab. MEXICO¹, Cordova (*Sallé*).

4. **Apenes parallela.**

Cymindis parallela, Dej. Sp. Gén. Col. i. p. 218¹.

Apenes parallela, Chaudoir, Bull. Mosc. 1875, ii. p. 37².

Hab. MEXICO (*Reiche*²).—WEST INDIES, Cuba^{1 2}.

5. **Apenes obscura.** (Tab. VII. fig. 25.)

Apenes obscura, Chaudoir, Bull. Mosc. 1875, ii. p. 38¹.

Hab. MEXICO¹, Orizaba (*Sallé*), Tehuacan (*Höge*).

6. *Apenes comis*.

Apenes comis, Bates, Proc. Zool. Soc. 1878, p. 606¹.

“Ad sectionem *A. purpuripennis* pertinet. *A. sinuata* paulo major, præcipue latior, supra plana, subopaca, fusco-ænea, antennis palpis pedibusque fulvis; capite fere lævi, subtiliter alutaceo, vix ruguloso; thorace late cordato, angulis posticis dentiformibus, basi media arcuata, sublobata, versus angulos subsinuata, lateribus marginulo explanato, supra passim subtiliter transversim strigato; elytris oblongis, apice subfortius sinuato-truncatis, punctulato-striatis, interstitiis planis alutaceis, fascia angusta curvata maculari subapicali rufa, interstitia 4^m-8^m occupante, apud 7^m 8^mque maculis versus apicem elongatis, macula altera subhumerali minus distincta. ♂.

“Long. 4 lin.”

Hab. PANAMA¹ (*coll. Bates*).

7. *Apenes lunulata*.

Apenes lunulata, Chaudoir, Bull. Mosc. 1875, ii. p. 46¹.

Hab. MEXICO, Yucatan (*Pilate*¹); GUATEMALA, Pantaleon (*Champion*).

Mr. Champion appears to have met with only one example of this pretty little species, which agrees perfectly with Chaudoir's description.

8. *Apenes peryphoides*. (Tab. VIII. fig. 2.)

A. lunigeræ et *lunulatæ* affinis, sed multo gracilior, præcipue thorace minore et angustiore. Obscure fusco-cuprea, nitida, antennis, partibus oris, pedibus maculisque elytrorum flavo-testaceis; capite lævissimo; thorace late cordato postice valde sinuato-angustato, angulis posticis prominentibus acutis, dorso subtilissime ruguloso, marginibus coriaceis et rugoso-punctatis rufescentibus; elytris punctulato-striatis, interstitiis sat convexis, macula humerali (paullo obscura) quadrata (postice haud prolongata) a stria 4^a usque ad humerum extensa, fascia subapicali e maculis parvis interstitia 4^m-8^m occupante; antennis quam in *A. lunigera* et *lunulata* gracilioribus, articulis 3^o et 4^o subelongato-elevatis, 5^o-11^m elongato-ovatis.

Long. fere 3 lin.

Hab. GUATEMALA, near the city (*Champion*).

9. *Apenes hamigera*.

Didymochæta hamigera, Chaudoir, Bull. Mosc. 1875, ii. p. 53¹.

Hab. MEXICO, Teapa (*Pilate*¹).

Distinguished from the preceding, as far as can be judged from the description, chiefly by the well-formed arcuate subapical fascia of the elytra.

10. *Apenes parvula*.

Didymochæta parvula, Chaudoir, Bull. Mosc. 1875, ii. p. 53¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

Subfam. CALLEIDINÆ.

This subfamily includes the Callidides of the monograph of the late Baron Chaudoir, with the addition of *Cryptobatis* and allies, and also *Dromius* and some of the allied

genera. The numerous forms of small Truncatipennes more or less resembling the familiar *Dromii* of north temperate countries have generally been considered closely allied to each other; and Chaudoir named the group Dromiides; but the group has never been defined, and the few words Chaudoir published regarding their points of difference from his Callidides are full of inaccuracies. In fact a group Dromiides is impossible of definition, including, as it does, such discrepant elements as *Axinopalpus*, *Dromius*, *Metabletus*, and *Demetrias*. There is no reason, I think, why *Metabletus* should not be placed with the Cymindinæ, its ligula and paraglossæ being similar to those of that group, whilst *Dromius*, in spite of the non-extension of the paraglossæ along the apical edge of the ligula, cannot be far removed from *Plochionus*. There are still many exotic forms of these small Truncatipennes unexamined and unnamed in collections; and therefore our present arrangements can only be provisional.

APRISTUS.

Apristus, Chaudoir, Enum. Carab. Caucas. p. 62 (1846); id. char. emend. Bull. Mosc. 1850, i. p. 65.

A genus of wide distribution, being spread over North America from high northern latitudes to Panama, Northern Asia to Japan, the Mediterranean region, Tropical Asia as far south as Ceylon and Burmah, and occurring also in Madagascar. Nineteen species have been described. They are eminently terrestrial and cursorial, as much so as the Tetrasonoderinæ, the unicolorous brassy species of which group some of the *Apristi* at first sight much resemble.

1. *Apristus mexicanus*.

A. subæneo affinis, sed minor et gracilior, supra fusciscenti-cupreus nitidus; elytris subtilissime reticulatis haud opacis, late striatis vel subsulcatis; antennis, palpis pedibusque nigris; thorace cordato, postice sat valde angustato, angulis posticis acutis, dorso convexo basi depresso, linea longitudinali modice impresso.

Long. $1\frac{1}{4}$ – $1\frac{1}{2}$ lin.

Hab. MEXICO, Parada (*Sallé*), Oaxaca (*Sallé*, *Höge*); GUATEMALA, Capetillo, Champérico, San Gerónimo, Rio Naranjo (*Champion*).

This species (Chaudoir's MS. name for which I have adopted) is distinct from *A. subsulcatus* and *A. laticollis*, the only North-American species known to me; but it may be the same as the following.

2. *Apristus tropicalis*.

Apristus tropicalis, Motschulsky, Bull. Mosc. 1864, iii. p. 232¹.

Hab. PANAMA, Obispo¹.

The author likens his species to *A. subsulcatus*. It appears to differ from *A. mexicanus* by its "nigro-æneus" colour, and from the following (*A. longulus*) by its deep punctured striæ.

3. **Apristus longulus.** (Tab. VIII. fig. 7.)

Longior et gracilior, nitidus, niger æneo vix tinctus, tibiis tarsisque piceis; thorace cordato, postice sinuatim angustato, angulis posticis obtusis; elytris apice oblique truncatis, dorso utrinque quinquestriatis, stria quinta versus apicem multo abbreviata, sexta versus basin tantum leviter impressa, septima nulla.

Long. $1\frac{1}{2}$ lin.

Hab. PANAMA, Bugaba (*Champion*).

BLECHRUS.

A genus of small Dromiinae, distributed over the north temperate zone, and most numerous and varied in the Mediterranean region. Eighteen species have been described; but several of these are doubtless only synonyms of the almost ubiquitous *B. glabratus*.

1. **Blechrus glabratus.**

Lebia glabrata, Duftschmid, Fauna Austr. ii. p. 248¹.

Dromius glabratus, Dej. Sp. Gén. Col. i. p. 244.

Dromius longulus, Dej. ibid. v. p. 350².

Blechrus glabratus, Schaum, Ins. Deutschl. i. 1, p. 275.

Blechrus negrita, Wollaston, Ins. Mader. p. 9³.

Hab. NORTH AMERICA, California.—MEXICO, Guanajuato (*Dugès, coll. Sallé*); GUATEMALA, Izabal (*Sallé*), San Juan (*Champion*).—EUROPE¹, SIBERIA², TANGIER³, MADEIRA³.

Mexican and Central-American specimens resemble most the more elongate Siberian form of the species. An example from California was sent to me by Schaufuss as *B. nigrinus* of Mannerheim. Mannerheim compared his *B. nigrinus* with *Metabletus truncatellus*, and made no allusion to the equally well-known *B. glabratus*; and I am inclined to think his species is not a *Blechrus* at all, especially as I have received from Morrison, also from California, as the *Blechrus nigrinus* an insect which appears to be a *Metabletus* allied to but longer than *M. truncatellus*.

AXINOPALPUS.

Axinopalpus, Leconte, Ann. Lyc. iv. p. 190 (1846).

Variopalpis, Solier; Gay, Hist. Chile, iv. p. 148 (1849).

This genus, peculiar to America, appears to be generally distributed throughout the continent, species being known from the equatorial plains of South America, as well as from temperate and tropical North America, and from Chili, including the outlying island of Juan Fernandez. Six species have so far been described.

According to Dr. Horn (Trans. Am. Ent. Soc. ix. 1881, p. 158), the date of publication of the genus *Axinopalpus* was 1846. The paper was certainly read in that year, although the volume of the 'Annals of the Lyceum' bears the date of 1848; but separate copies of the paper may have been issued by the author in 1846.

1. **Axinopalpus mexicanus.** (Tab. VIII. fig. 6.)

A. biplagiato proxime affinis et simillimus, sed elytrorum vitta flava nec humerum nec marginem attingente. Piceo-niger, nitidus, antennis basi, pedibus fasciaque utrinque elytrorum (postice abbreviata, suturæ parallela, versus basin oblique deflecta, marginem longe haud attingente) flavis; thorace late cordato, angulis posticis prominentibus; elytris obsolete striatis.

Long. $1\frac{1}{2}$ lin.

Hab. MEXICO, Jalapa (*Höge*).

Resembles *A. biplagiatus* of the Eastern States of North America more nearly than it does the western *A. californicus*.

2. **Axinopalpus fusciceps.**

Axinopalpus fusciceps, Leconte, Ann. Lyc. N. York, v. p. 175¹.

Hab. NORTH AMERICA, California¹, Texas.—MEXICO, Guanajuato (*Dugès, coll. Sallé*); GUATEMALA, Quiche Mountains (*Champion*).

3. **Axinopalpus jucundus.** (Tab. VIII. fig. 8.)

Minus linearis, melleo-flavis, thorace rufo, vertice, vitta suturali (medio dilatata apicem longe haud attingente), macula utrinque discoidali (cum vitta suturali fere conjuncta) nigro-fuscis; capite quam in *A. fuscipite* latiore et brevior, post oculos prominentes subito breviter angustato; thorace breviter cordato, postice sicut in cæteris speciebus sinuato-angustato, angulis exstantibus acutis; elytris distincte punctulato-striatis.

Long. $1\frac{1}{4}$ lin.

Hab. GUATEMALA, Las Mercedes (*Champion*).

One example only.

DROMIUS.

Dromius, Bonelli, Obs. Ent. i. (1809) tabl. synopt.; Lacordaire, Gen. Col. i. p. 119; Schaum, Ins. Deutschl. i. 1, p. 263.

Seventy-five species of this well-known and widely distributed genus have been described. It is characteristic of the north temperate fauna of the Old World; but a few species occur in North America, and others in Tropical Asia, South Africa, Chili, and Australia. The following species are the first true *Dromii* recorded from Tropical America.

1. **Dromius flohri.**

D. piceo affinis, sed differt capite post oculos brevior, citius rotundato &c. Elongato-oblongus, subdepressus, piceo-niger, leviter æneo tinctus, nitidus; antennis, partibus oris pedibusque rufioribus; capite post oculos prominentes rotundato-angustato, collo distincto; fronte juxta oculum utrinque acute 3- vel 4-plicata; thorace subquadrato lateribus arcuatis, antice quam postice paullo citius angustato, margine late (antice angustius) explanato-reflexo, angulis posticis obtusis, rotundatis, dorso striguloso; elytris transversim leviter sinuatim truncatis angulo exteriori rotundato, dorso sat profunde punctato-striatis, stria 6^a punctis setiferis sex, interstitiis convexis; ligula sexsetosa, paraglossis ea haud longioribus.

Long. $3\frac{1}{2}$ lin.

Hab. MEXICO, Las Vigas (*Flohr*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, March 1883.

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The thorax is considerably narrowed behind, a feature which distinguishes the species at once from the following.

2. *Dromius guatemalensis*. (Tab. VIII. fig. 5.)

D. flohri proxime affinis, elytris longioribus, parallelis, thoracisque marginibus fere ut in *D. piceo* late explanato-reflexis rufis. Castaneo-fuscus, antennis basi, genibus tarsisque pallidioribus; fronte juxta oculos longius et acutius plicata; thorace quadrato postice minime plus minusve sinuatim angustato, ante medium paullo rotundato, angulis posticis fere rectis, supra fortius strigoso; elytrorum striis acute exaratis punctatis, 6^a pluripunctata.

Long. $3\frac{1}{2}$ lin.

Hab. GUATEMALA, Capetillo, Quiche Mountains (*Champion*).

In one example (σ ?) the palpi are distinctly although briefly truncated.

EUPROCTUS.

Euproctus, Solier; Gay, Hist. de Chile, Ent. iv. p. 131; Chaudoir, Monogr. des Callid. p. 90.

A genus peculiar to the American continent, and distributed from Florida to Chile. Six species have been described, a number which the industry of Messrs. Champion and Höge in Guatemala and Chiriqui and in Mexico has enabled us greatly to increase.

1. *Euproctus metricus*.

Subgracilis, melleo-flavus, capite thoraceque rufis, hoc margine laterali angusto nigro, elytris utrinque linea angusta nigra submarginale circumscriptis alteraque obliqua mediana, hac apud lineam saturalem paullo dilatata, linea suturali prope scutellum oblique versus humeros ducta ibique paullo latiore, area triangulari scutellari cum marginibus omnibus (suturali angustissimo) maculaque utrinque basali (linea nigra fere interrumpente) flavis; thorace anguste cordato, postice valde sinuatim angustato, angulis posticis exstantibus; elytris gracilibus subtilissime striato-punctatis, interstitiis planis.

Long. $2\frac{3}{4}$ - $3\frac{1}{4}$ lin.

Hab. MEXICO, Jalapa, Almolonga (*Höge*).

Allied to *E. quadriplagiatus* (Reiche), but longer, and differing, as far as I can gather from the description, by the black lines of the elytra being much narrower. The scutellar area, as in that species, remains of the ground-colour of the elytra; but the dusky lateral border of the thorax is not shortened, but extends in all examples to the hind angles.

2. *Euproctus fenestrellus*. (Tab. VIII. fig. 10.)

E. metrico affinis, sed signaturis elytrorum latioribus maculaque pallida scutellari nulla etc. Paullo minus gracilis, præcipue elytris relative brevioribus et latioribus; fulvo-flavus, capite thoraceque rufis, hoc margine laterali angusto nigro, elytris utrinque vittis suturali (prope scutellum valde dilatata) et intramarginali (apud basin utrinque solum subinterrupta) fasciaque oblique mediana nigris; thorace anguste cordato, postice valde sinuatim angustato, angulis posticis exstantibus, acutioribus; elytris postice ampliatis, punctulato-striatis, interstitiis paullo convexis sparsim punctulatis.

Long. $3\frac{1}{4}$ lin.

Hab. GUATEMALA, Capetillo, Panajachel, Cerro Zunil (*Champion*).

Var. elytris sicut in *E. metrico* longioribus signaturisque nigris angustioribus.

Hab. MEXICO, Jalapa (*Höge*).

The variety from Mexico bridges over the difference between this species and *E. metricus*.

3. *Euproctus quadrinus*. (Tab. VIII. fig. 11.)

E. fenestrello simillimus, sed differt elytrorum fascia mediana nigra duplo latiore et minus obliqua, maculisque inclusis quatuor flavis minoribus. Fulvo-flavus, thoracis margine laterali fusco basin haud attingente; elytris basi (margine inflexo flavo excepto) tota late nigra, margine suturali sicut in *E. fenestrello* sat lato, scutellum attingente ibique dilatato etc.; elytris adhuc latioribus, subtiliter punctulato-striatis, interstitiis planis.

Long. $3\frac{1}{4}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

The black markings of the elytra form a similar pattern to that of the two preceding species; but the cross bar is much broader and less oblique than it is in either, and the included yellow spots are less prolonged at their outer upper angles than in the allied species. Further, the black basal border is not indented or subinterrupted by a yellow basal spot (near the shoulders) as in the other two species.

One example only.

4. *Euproctus ornatellus*. (Tab. VIII. fig. 15.)

Præcedentibus proxime affinis, sed multo minor elytrorumque signaturis nigris multo latioribus. Subgracilis, flavus, thorace lateribus late infuscatis; elytris nigris, utrinque margine angusto maculisque quatuor ovatis flavis; thorace sicut in præcedentibus, anguste cordato, postice valde sinuatim angustato, angulis posticis exstantibus acutis; elytris subtilissime striato-punctulatis, interstitiis planissimis.

Long. 2 lin.

Hab. GUATEMALA, Zapote, El Reposo (*Champion*).

The black colour in this pretty little species occupies the chief part of the elytral surface; and the pattern appears, in consequence, not as fine marginal and cross lines on a yellow ground, but as four rather large oval spots on a black ground, the edges of the yellow spots being perfectly entire.

5. *Euproctus deliciolus*. (Tab. VIII. fig. 13.)

Subgracilis, fulvo-flavus, thoracis margine angusto elytrisque dimidio basali lineisque suturali submarginalique (usque ad angulum suturale) nigris, relicta utrinque macula subapicali magna oblongo-ovata fulvo-flava; thorace sicut in præcedentibus, anguste cordato, sed postice minus sinuato angulisque minus exstantibus; elytris subtilissime et obsolete striato-punctulatis (fere lævibus).

Long. $2\frac{2}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui.

In this distinct and beautiful species the basal part of the elytra (up to the extreme basal and humeral rims) is deep glossy black, this colour being continued to the apex (enclosing a large oval yellow spot) in fine submarginal and sutural lines; the sutural

line tapers in width from the black basal part to the apex; and the hind edge of the black basal part is arcuated on each elytron.

One example only.

6. Euproctus subdeletus. (Tab. VIII. fig. 9.)

E. metrico quoad signaturas similis, sed his partim oblitteratis thoracisque forma altera. Major, subgracilis, testaceo-flavus, capite thoraceque rufioribus, elytris lineis angustis suturali marginalique, pone scutellum et apud basin utrinque late oblitteratis, et fascia tenui obliqua pallide fuscis; thorace quadrato-cordato, antice minus rotundato, postice rectius et minus angustato, angulis posticis paullo exstantibus, margine basali juxta angulum obliquo; elytris subtilissime punctulato-striatis, interstitiis planis.

Long. $3\frac{1}{2}$ lin.

Hab. MEXICO, Jalapa, Almolonga (*Höge*); GUATEMALA, Chinantla (*Salvin*).

7. Euproctus sigillatus. (Tab. VIII. fig. 14.)

E. subdeleto quoad formam similis, sed signaturis aliis. Testaceo-flavus, capite thoraceque subrufis, elytris basi, vitta marginali (longe ante apicem terminata), fascia recta submediana ad suturam postice quadrato-dilatata, vitta suturali ante fasciam, prope scutellum dilatata, castaneo-fuscis; thorace ut in *E. subdeleto*, antice paullulum rotundato, postice parum angustato sed ante angulos prominentes sat sinuato, margine basali juxta angulum valde obliquo, dorso strigoso; elytris punctulato-striatis, interstitiis planis punctulatis.

Long. $3\frac{1}{2}$ lin.

Hab. MEXICO, Juquila (*Höge*).

Differs from all the preceding in the form of the dark markings of the elytra, which are of a chestnut-brown colour. The sutural and marginal streaks are not continued to the apex; and the median fascia is nearly straight, and enlarged posteriorly as a quadrate sutural spot; the sutural vitta anterior to the fascia is gradually dilated near the fascia and near the scutellum. The scutellar area remains reddish; and there is a reddish spot at the base on each side.

8. Euproctus abjectus. (Tab. VIII. fig. 12.)

Minor et gracilior, castaneo-fuscus, antennis, palpis pedibusque pallidioribus, elytris utrinque maculis sublineariibus duabus flavis (interdum indistinctis vel obsoletis) interstitia 3^m et 4^m occupantibus, anterior (longiore) ante medium, posteriore prope apicem; thorace cordato, antice minus rotundato, postice multo minus sinuato, angulis posticis minime prominentibus, margine basali juxta angulum valde obliquo; elytris punctulato-striatis.

Long. $2\frac{1}{2}$ lin.

Hab. MEXICO, Vera Cruz, Soledad, Juquila (*Sallé*), Almolonga (*Höge*); GUATEMALA, San Gerónimo, Cubilguitz (*Champion*).

MENIDIUS.

Plochionus, § *Menidius*, Chaudoir, Monogr. d. Callidides, p. 76.

Similar in its range to the genus *Euproctus*. Six species have been described.

1. **Menidius incultus.** (Tab. VIII. fig. 17.)

Plochiono pallenti similis, sed multo gracilior, thorace postice minime angustato nec sinuato tarsisque gracilibus. Fulvo-testaceus, nitidus; capite subtiliter et irregulariter ruguloso, fronte foveola mediana parva, sulculoque angusto juxta oculos; thorace rotundato-angustato usque ad collum, postice vix angustato, angulis posticis fere rectis, supra transversim striguloso; elytris subtiliter punctulato-striatis, interstitiis convexis, 3° bipunctato; tarsis posticis gracilibus haud depressis, articulo 4° acute emarginato, unguibus longius quam in *Plochiono pallente* pectinatis.

Long. 3 lin.

Hab. GUATEMALA, San Gerónimo (*Champion*).

2. **Menidius circumseptus.** (Tab. VIII. fig. 16.)

Quoad signaturas *Euprocto subdeleto* similis. Oblongus, quam *M. timidus* multo angustior, testaceo-fulvus, capite thoraceque rufioribus; media fronte foveola v-formi, juxta oculum utrinque acute uniplicata; thorace semiovato, postice latiore, dorso transversim strigoso; elytris utrinque linea angusta suturali et intramarginali fasciaque simili postmediana paullulum obliqua, nigra; linea suturali juxta basin et apicem interrupta; dorso subtiliter sed sat acute punctulato-striato, interstitiis subconvexis.

Long 3½ lin.

Hab. GUATEMALA, near the city (*Champion*).

3. **Menidius formosus.** (Tab. VIII. fig. 18.)

M. favigero affinis; multo major, elongato-ovatus, fulvus nitidus, elytris nigro-reticulatis, vel nigris margine et humero maculisque æqualibus angulatis utrinque novem, scilicet 2 2 1 2 2, fulvis; antennis nigris, articulis 1°-3^m et 4° basi rufis; palpis nigris, apice rufis; fronte grosse irregulariter rugosa, medio fusca; thorace fere semicirculari, margine laterali (præcipue postice) late explanato et modice reflexo; linea dorsali lata et profunda infuscata, disco transversim rugoso vitta utrinque nigro; elytris striatis, interstitiis convexis hic illic depressis et planioribus; tarsis infuscatis.

Long. 4½ lin.

Hab. MEXICO, Mirador (*Höge*); GUATEMALA, Zapote (*Champion*).

In the Mexican specimen of this remarkable species the black curves which form the reticulation are much narrower than in the Guatemalan examples; but the enclosed tawny-yellow spots are nearly of the same shape in both forms, and they are all completely circumscribed by the black lines, except three of the four next the narrow black suture, which are open to each other for a very narrow space by the black marks not quite touching the suture. The allied species, *M. faviger* (Chaud.), from New Granada, is only 5½ millim. long (2¾ lin.), and has ten yellow spots on each elytron.

PLOCHIONUS.

Plochionus, Dejean, Sp. Gén. Col. i. p. 250; Chaudoir, Monogr. des Callidides, p. 76.

Two species only of this genus have been recorded, one of them cosmopolitan in its range, its habit of resorting for prey to boxes and trunks having led to its wide dissemination by commerce. What its original home may have been it would be hazardous to say.

1. *Plochionus pallens*.

Carabus pallens, Fabricius, Syst. Entom. p. 244 (1775)¹.

Plochionus pallens, Chaudoir, Monogr. d. Callid. p. 76².

Plochionus Bonfilsii, Dejean, Sp. Gén. Col. i. p. 251³; Hope, Coleopterist's Manual, ii. t. 1. f. 6.

Plochionus Boisduvalii, Gory, Ann. Soc. Ent. Fr. 1833, p. 189.

Hab. NORTH AMERICA².—MEXICO, Cordova, Yolos, Playa Vicente (*Sallé*), Guanajuato (*Dugès, coll. Sallé*); NICARAGUA, Chinandega (*Sallé*).—SOUTH AMERICA, Colombia², Amazons; EUROPE, Germany¹, S. France³; AFRICA, Senegal², Mauritius²; ASIA, Java², I. of Formosa; POLYNESIA².

ONOTA.

Onota, Chaudoir, Monogr. des Callidides, p. 73; Horn, Trans. Amer. Ent. Soc. ix. (1881) pp. 157, 159, t. iv. f. 4, t. ix. f. 102.

A genus peculiar to America; the described species, six in number, are all tropical, except one from Florida.

1. *Onota angulicollis*. (Tab. VIII. fig. 19.)

Lebia? angusticollis, Reiche, Rev. Zool. 1842, p. 312¹; Chaudoir, Monogr. des Callid. p. 74².

Hab. GUATEMALA, Teleman, Panzos (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia¹, Amazons².

Central-American examples have the elytra nearly always of a bright brassy green, instead of "violet-blue" or "almost green," as described by Chaudoir; and they vary in size from $5\frac{1}{4}$ to $6\frac{1}{4}$ millimetres. All except the few Guatemalan specimens have the palpi red; and in those the base of the terminal joint (as well as the apex of some of the antennal joints), the knees, and often the tibiæ, are dark fuscous. The hind angles of the thorax also are less projecting than they appear to be in *O. angusticollis*; but all these characters are seen to vary when a large series is examined, and it is doubtful even if *O. bicolor* of South Brazil, with black palpi, can be maintained as distinct from the present species.

OTOGLOSSA.

Otoglossa, Chaudoir, Monogr. des Callidides, p. 66.

As far as at present known, peculiar to Tropical America. Six species have been described.

1. *Otoglossa rufitarsis*.

Otoglossa rufitarsis, Chaudoir, Bull. Mosc. 1877, i. p. 231¹.

Otoglossa celestina, Bates, Proc. Zool. Soc. 1878, p. 607².

Hab. MEXICO, Jalapa, Cerro de Plumas (*Höge*); GUATEMALA, Capetillo, Cerro Zunil,

El Tumbador (*Champion*); NICARAGUA, Chontales¹ (*Belt*²); PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

The prevailing colour is a beautiful metallic blue; but it is sometimes darker, and specimens occur in which the elytra are violet with the margins greenish blue. The tarsi are all pale reddish, except in Panama specimens, in which (especially at the apices of the joints) they are more or less blackish brown.

2. *Otoglossa obscurella*.

Otoglossa obscurella, Bates, Proc. Zool. Soc. 1878, p. 608¹.

‘Minor, nigra; elytris leviter violaceo-tinctis, apice fascia obscure rufa ad suturam angustata; tarsis rufopiceis; abdomine flavo; capite post oculos paulo citius rectiusque angustato, occipite minus convexo; thorace angusto, pone medium fortiter sinuato-angustato, basi iterum dilatato; elytris supra modice inæqualibus, obsolete striatis.

“Long. $2\frac{1}{3}$ lin.”

Hab. BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); NICARAGUA, Chontales (*Belt*¹).
—SOUTH AMERICA, Colombia.

Similar in colours and form to the South-Brazilian *O. terminalis*, but differs in the pale red tarsi. From *O. rufitarsis* it is distinguished by its relatively shorter form and by its dark violet-black elytra.

3. *Otoglossa marginella*. (Tab. VIII. fig. 24.)

O. rufitarsi affinisissima, differt colore fere nigro elytris apice angustissime rufo-marginatis. Elongata, nigra vix chalybeata, tarsis testaceo-fulvis; elytris oblongis, striis punctulatis vix impressis, interstitiis hic illic elevatis, apice tenuissime rufo-marginatis; capite post oculos subrotundato-angustato; thorace angusto ante medium obtuso angulato, angulis posticis sat prominentibus sed apice obtusis.

Long. $2\frac{3}{4}$ lin. (6 millim.).

Hab. PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

MICRAGRA.

Micragra, Chaudoir, Monogr. des Callidides, p. 63.

Cylindronotum, Putzeys, Mém. Soc. R. d. Sci. d. Liège, ii. p. 374 (1846), nom. præocc.

Stenonotum, Lacordaire, Gen. des Coléopt. i. p. 107 (1854), nom. præocc.

Also peculiar to Tropical America. Six species have been described.

1. *Micragra ænea*. (Tab. VIII. fig. 22.)

Cylindronotum æneum, Putzeys, Mém. Soc. R. d. Sci. de Liège, ii. p. 374¹.

Micragra ænea, Chaudoir, Monogr. des Callid. p. 65.

Hab. BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Zapote, El Reposo, El Jicaro, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Janson*); PANAMA, Caldera, Bugaba, David, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Cayenne¹.

The numerous Central-American examples all belong clearly to one species, which

seems not to be different from *M. ænea* of Cayenne, and, judging from a specimen which I obtained from the same source (Squire's collection) as the describer's, undistinguishable from *M. reichei* (Chaudoir) of Rio Janeiro. Specimens differ in the relative length of the elytra, which is one of the chief points of distinction between *M. ænea* and *M. reichei*. The colour is brownish bronze, more or less dark, the elytra being sometimes rufescent on the side towards the tip, and the base of the antennæ and sometimes the legs more or less testaceous red. The head and thorax are coarsely punctured; the elytra conspicuously punctate-striate, the striæ deeper in two depressed spaces on the disk and on the sides before a slightly raised callus, and less impressed on the hinder part of the disk. The thorax is narrow, obtusely angulated before the middle, and slightly sinuated between that point and the basal angle.

HYBOPTERA.

Hyboptera, Chaudoir, Monogr. des Callidides, p. 69.

This curious and beautiful little genus is also peculiar to Tropical America. Four species have been described.

1. *Hyboptera tuberculata*. (Tab. VIII. fig. 23.)

Lebia tuberculata, Dejean, Sp. Gén. Col. i. p. 272¹.

Hyboptera tuberculata, Chaudoir, loc. cit. p. 70².

Hab. PANAMA, Volcan de Chiriqui (*Champion*). — SOUTH AMERICA, Cayenne¹, Amazons².

ASPASIOLA.

Aspasiola, Chaudoir, Bull. Mosc. 1877, i. p. 209.

This and the following genus were excluded from the Callidides group by Chaudoir on account of the paraglossæ not uniting above and bordering the upper edge of the ligula, a character which he held to be distinctive of the group. Too close an adherence to this one character, however, proves to lead to artificial results, or at least to render a natural grouping of the Carabidæ impossible. Dr. Horn has recently shown by dissection that some of the species (*Spongoloba punctata* and an allied species) admitted by Chaudoir into the group, and not to be separated from them in a natural classification, do not show this union of the paraglossæ at the tip of the ligula; and it is well known that genera of quite different subfamilies exhibit the character to as high a degree as the typical Calleidæ. If, then, this development of the paraglossæ be set aside, and the *ensemble* of the other characters allowed to have its legitimate weight, we shall be obliged to admit such genera as *Aspasiola*, *Cryptobatis*, *Physodera*, &c. into the same subgroup as *Onota*, *Otoglossa*, and *Hyboptera*. All agree with the Callidides in having securiform labial palpi and bilobed penultimate joint of the tarsi; their para-

glossæ, though extending only to the anterior angles of the ligulæ, are closely adherent, broad, and naked, as in *Calleida*; their elytra also have the peculiar depressions on the anterior part of the disk which distinguish many of the genera of the subfamily.

Aspasiola has a similar geographical distribution to *Hyboptera* and its allies, and is nearest allied in form of body to the broader species of *Onota*, e. g. *O. tenuicineta*.

1. *Aspasiola rutilans*.

Aspasiola rutilans, Chaudoir, Bull. Mosc. 1877, i. p. 209.

Hab. MEXICO, Toxpam (*Sallé*); PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Among the few examples sent home by Champion from Chiriqui, some resemble closely the Mexican specimens, differing chiefly in having three or four (instead of two) red basal joints to the antennæ, whilst two others differ in having only the scape red; and these present a striking difference in the form of the thorax, constituting the following variety:—

Var. *A. ignea*. Thorax latior, marginibus lateralibus latius explanato-reflexis et ante medium distincte angulatis. Antennarum articulo basali tantum rufo.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

2. *Aspasiola lemoides*. (Tab. VIII. fig. 21.)

A. rutilanti prima facie simillima; paullo longior (postice ampliata), fulvo-rufa, leviter æneo-tincta; antennis, palpis apice, tibiis et tarsi piceo-nigris; capite brevi convexo, paullo post oculos prominentes constricto; thorace late subcordato, supra ante basin transversim depresso, lateribus modice explanatis et fortiter reflexis medio subangulatis, angulis posticis exstantibus margineque basali prope angulum sinuato-obliquo velut indentato; elytris minus inæqualibus, disco anteriore utrinque sat depresso, sed callo marginali-apicali nullo, dorso subtilissime striato-punctato, interstitiis planis.

Long. $2\frac{2}{3}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

This curious little species resembles at first sight a small reddish-brown *Lema*. Only one example appears to have been taken.

CRYPTOBATIS.

Cryptobatis, Eschscholtz, Zool. Atlas, Heft 2, p. 7 (1829).

Aspasia, Dejean, Sp. Gén. Col. v. p. 363 (1831).

Also an exclusively Tropical-American genus. Seven species have been so far described.

1. *Cryptobatis janthoptera*.

Aspasia janthoptera, Reiche, Rev. Zool. 1842, p. 310¹.

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia¹.

The interstices of the elytra are sparingly and faintly punctured, probably less

strongly than in typical specimens, judging from Reiche's expression "interstitiis valde punctatis."

2. *Cryptobatis chontalensis*. (Tab. VIII. fig. 20.)

C. janthopterae proxime affinis, differt tantum statura paullo minore et angustiore interstitiisque elytrorum lævibus. Oblonga, flava, elytris læte violaceis striato-punctatis, utrinque callis duobus subapicalibus, striato-punctatis, interstitiis lævibus, exterioribus sparsissime punctulatis exceptis; antennis, femoribus apice, tibiis et tarsis nigris; thorace valde transverso, interdum minus lato, angulis posticis fere obtusis; metasterno antice (inter coxas) tumido.

Long. $3\frac{1}{2}$ lin.

Hab. NICARAGUA, Chontales (*Belt, Janson*).

Scarcely more than a local variety of *C. janthoptera*. The same may be said of the South-American species *C. laticollis* and *C. inæqualis*.

PHILOPHEUGA.

Phylophuga, Motschulsky, Bull. Mosc. 1859, ii. p. 140.

Philopheuga, Chaudoir, Bull. Mosc. 1877, i. p. 243.

This genus appears to be limited in its distribution to the Pacific and Southern States of North America, one of the species extending into Central Mexico. Three species are known.

The genus is scarcely in its right place near *Calleida*; but it cannot in a natural system be far removed from *Spongoloba*, which comes next to *Calleida* in Chaudoir's classification. It will probably find its place eventually in a separate subgroup of *Calleidinæ*, to which *Mimodromius* and its numerous allies belong.

1. *Philopheuga viridicollis*.

Cymindis viridicollis, Leconte, Ann. Lyc. N. York, iv. p. 188¹ (1848).

Philopheuga purpurea, Chaudoir, Bull. Mosc. 1877, i. p. 245 (nec Say).

Philopheuga subcordata, Chaudoir, *ibid.* p. 246².

Calleida viridis, Chevrolat, Col. Mex. ii. no. 155 (1835)³.

Hab. NORTH AMERICA, Rocky Mountains¹, Texas.—MEXICO², near the city (*Sallé, Flohr*), San Andres (*Sallé*), Guanajuato (*Dugès, coll. Sallé*), Las Vigas³ (*Höge*).

On the comparison of a long series I can perceive no constant difference between Mexican specimens and others from Texas.

A specimen named *C. viridis*, Chevr., in the Sallé collection, belongs to this species. The name is more ancient than *C. viridicollis*, but is inadmissible, as the *Cymindis viridis* described by Dejean four years earlier, viz. in 1831, is a distinct species of the same genus.

2. *Philopheuga brachinoides*. (Tab. IX. fig. 1.)

Læte subviridi-cærulea, minus nitida, elytris subopacis, dorso violaceis; antennis basi (articulis 1^o-3^m et 4ⁱ dimidio basali), thorace femoribusque rufis, tibiis tarsisque fusciscenti-rufis; capite (media fronte excepta)

grosse sparsim punctato; thorace sicut in *P. viridicollis* cordato, transversim (prope latera grosse) rugoso, basi et apice punctato; elytris punctato-striatis, interstitiis punctulatis convexiusculis.

Long. 4 lin.

Hab. MEXICO, Cerro de Plumas (*Höge*).

One example only.

CALLEIDA.

Calleida, Dejean, Sp. Gén. Col. i. p. 220 (1825).

Callida, Chaudoir, Monogr. d. Callidides, p. 11 (1872).

About 120 species of this beautiful genus have been described. It is distributed throughout the tropical and warmer temperate regions of both the eastern and western hemispheres, but does not occur in Europe or in the Mediterranean subprovince, nor, as far as is known, in Australia or the Oceanic islands.

I. *Anus in mare postice utrinque unipunctatus, in femina bipunctatus.*

All the Old-world species belong to this section, established by Chaudoir; and thus it appears of some value as a natural division of the genus. But the number of anal setiferous punctures in the New-world species seems not to correspond with their other characters, and to separate forms which are naturally allied; the number of punctures also varies capriciously in one and the same species.

1. ***Calleida brunnea.***

Calleida brunnea, Dejean, Sp. Gén. Col. v. p. 328¹; Chaudoir, Monogr. d. Callidides, p. 19.

Hab. MEXICO (*Höpfner*¹).

2. ***Calleida sericinitens.*** (Tab. IX. fig. 3.)

Elongata, postice (præcipue ♀) ampliata, supra depressa sat lata, rufa, elytris ænescenti-viridibus sericeo-nitentibus, vitta utrinque laterali (versus angulum laterali-apicalem dilatata) aurea, epipleuris, interdum quoque sutura margineque laterali, rufis; capite mox pone oculos sat abrupte angustato; thorace subcordato, antice late rotundato, postice sinuato-angustato, angulis posticis parum exstantibus fere rectis interdum subobtusis, dorso transversim modice acute striguloso, limbo et juxta lineam dorsalem punctato; elytris latis, sinuato-truncatis, angulo exteriori nullomodo producto, dorso antico modice depresso, acute sed haud profunde punctato-striatis, interstitiis fere planis subtiliter sparsius punctulatis, tertii puncto anteriore paulo ante medium, posteriore ab apice sat remoto.

Long. 5½ lin.

Hab. BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, near the city, Calderas (*Champion*).

Evidently closely allied to *C. brunnea*, a species I know only from description, and of which apparently only a single specimen is known in collections. The punctuation of the interstices of the elytra appears, however, much weaker than in that species, being extremely fine and sparse.

3. *Calleida aurescens*. (Tab. IX. fig. 4.)

Præcedenti affinis. Piceo-nigra, capite thoraceque ænescenti-nigris (hoc marginibus anguste rufescentibus), scapo palpisque apice rufis, elytris aureo-vel cupreo-fuscis sericeo-nitentibus, lateribus lætius metallicis, punctato-striatis, interstitiis planis distinctius punctulatis; capite præcipue prope oculos ruguloso, occipite punctato; thorace cordato-quadrato, antice valde rotundato, postice sinuatim angustato, angulis fere acutis, dorso acutius transversim strigoso, juxta lineam dorsalem marginesque sat crebre punctato.

Long. 6 lin. ♀.

Hab. GUATEMALA, El Jicaro, San Gerónimo (*Champion*).

4. *Calleida lampra*. (Tab. IX. fig. 2.)

Callida dives?, Chaudoir, Monogr. des Callidides, p. 22¹ (nec *Calleida dives* ejusd. Bull. Mosc. 1852, i. p. 50).

Oblonga, planata, rufa, elytris splendide viridi-auratis, lateribus igneo-cupreis, epipleuris suturaque anguste rufis, antennis (articulis 1^o-3^m exceptis), palpis pedibusque piceo-fuscis; capite mox pone oculos subito subrotundato-angustato, collo constricto, supra impunctato; thorace oblongo, antice parum rotundato, postice modice angustato subsinuato angulis subrectis, dorso lævi, lateribus rugulosis, margine explanato-reflexo; elytris sinuato-truncatis, angulo exteriori obtusissime angulato, acute striatis (striis prope basin subpunctulatis), interstitiis planis, tertio punctis duobus magnis, primo juxta striam tertiam paulo ante medium.

Long. 5-5½ lin. ♂ ♀.

Hab. GUATEMALA¹, Capetillo, Las Mercedes, Cerro Zunil (*Champion*).

Agrees precisely in form with the species Chaudoir described from Guatemala as referable to his previously published *C. dives*, but differs in colours, especially as to the antennæ and legs. Chaudoir's second *dives*, however, cannot be the same species as his first, to the original unique example of which he no longer had access. His second description is also founded on a single example, and that immature.

5. *Calleida pulcherrima*. (Tab. IX. fig. 7.)

Elongato-oblonga, latiuscula, subdepressa, læte fulvo-rufa, elytris fere dimidio basali splendide aurato-viridi, deinde usque ad apicem marginibus auratis, margine reflexo epipleuris rufis; capite post oculos rotundato-angustato fere tumido, collo distincto, supra impunctato; thorace oblongo, antice modice rotundato, postice parum angustato, angulis posticis subrectis (apice acutis), marginibus lateralibus sat late explanato-reflexis, dorso transversim obsolete striato; elytris oblongis, postice haud ampliatis, apice sinuatim truncatis, angulo exteriori producto subdentiformi, dorso antico late depresso acute subpunctulatim striatis, interstitiis impunctatis, tertio puncto anteriore paulo ante medium sito.

Long. 5½-6½ lin. ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

6. *Calleida aureola*. (Tab. IX. fig. 6.)

C. pulcherrimæ proxime affinis: læte fulvo-rufa, elytris marginibus lateralibus ab humero usque ad apicem splendide aurato-viridibus, colore viridi prope basin latiore sed striam tertiam tantum attingente; capite post oculos rectius et citius angustato; thorace interdum antice magis rotundato, angulis posticis minus prominentibus.

Long. 5½ lin. ♂ ♀.

Hab. GUATEMALA, Capetillo, San Juan, Purula (*Champion*).

7. *Calleida lætipennis*.

Calleida lætipennis, Bates, Proc. Zool. Soc. 1878, p. 608¹.

“Subgracilis, castaneo-rufa, elytris (epipleuris exceptis) aurato-æneis; capite angusto, post oculos gradatim angustato haud tumido, collo distincto; thorace quadrato-cordato, postice leviter sinuatim angustato, angulis posticis subrectis; elytris apice leviter sinuatim truncatis, angulis externis valde rotundatis, punctulato-striatis, interstitiis planis.

“Long. $4\frac{1}{2}$ lin.”

Hab. NICARAGUA, Chontales (*Belt, Janson*¹).

Nearest allied to *C. lampra*, but much smaller, and the elytra narrower, approaching more nearly the form of *C. æruginosa*, and with scarcely any trace of the anterior discoidal depression; the striæ are extremely fine, though sharply impressed. The two punctures on the third interstice are large and inconspicuous; and the anterior one is situated a little before the middle. The thorax has only very slight traces of transverse rugæ; its sides are explanated and reflexed as in the allied species.

8. *Calleida tetrapora*. (Tab. I X. fig. 13.)

C. simili et *C. æruginosæ* proxime affinis, sed longior et gracilior elytris cupreo-auratis nitidissimis. Castaneo-fusca æneo-tincta, antennis (articulis 3 basalibus exceptis), palpis (apice pallidis) pedibusque nigro-fuscis, tibiis magis rufescenti-piceis; fronte juxta oculus utrinque acute uniplicata; thorace subelongato quadrato, antice modice rotundato et usque ad collum angustato, postice paullo (vix sinuatim) angustato, angulis rectis, lateribus sat late explanatis rufescentibus, dorso lævi; elytris oblongis, sublinearibus subtilissime et integriter punctulato-striatis, interstitiis planis, tertii punctis rotundatis profundis umbilicatis; epipleuris castaneis.

Long. $3\frac{3}{4}$ lin. (8 millim.). ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Larger and relatively longer both in thorax and elytra than *C. æruginosa*, and differing also in colours and in the fine, continuous, minutely and regularly punctured striæ. It is, however, very closely allied to that species; and the male has a similar distinct notch in the apical margin of the anal ventral segment.

9. *Calleida ignobilis*.

C. tetraporæ proxime affinis, differt tantum elytris profundius striatis punctisque interstitii tertii parvis minus impressis posteriore in medio interstitio sito. Elongato-sublinearis, castaneo-fusca æneo-nitens, interdum rufescens; thorace sicut in *C. tetrapora* elongato postice magis sinuato; elytris obscurius fusco-cupreis, subæneis.

Long. $3\frac{3}{4}$ lin.

Hab. MEXICO, Oaxaca (*Höge*); GUATEMALA, San Juan (*Champion*).

10. *Calleida similis*.

Calleida similis, Reiche, Rev. Zool. 1842, p. 308¹.

Callida similis, Chaudoir, Monogr. des Callidides, p. 24.

Calleida similata, Chaudoir, Bull. Mosc. 1852, i. p. 54².

Calleida subærea, Motschulsky, Bull. Mosc. 1864, ii. p. 236³.

Hab. PANAMA¹, David (*Champion*).—SOUTH AMERICA, Colombia^{1 2}.

11. *Calleida purpuripennis*.

Callida purpuripennis, Chaudoir, Monogr. des Callidides, p. 25¹.

Hab. MEXICO¹, Cordova, Jalapa (*Höge*).

The purple-coppery coloured form of this species to which the single example known to its describer belonged, appears to be exceptional, as the great majority of the extensive series collected by Herr Höge are brassy in colour, coppery only on the sides of the elytra.

12. *Calleida jansoni*. (Tab. IX. fig. 15.)

Calleida jansoni, Bates, Proc. Zool. Soc. 1878, p. 608¹.

“*C. onypterygioidi* (Chaud.) coloribus similis, at minus nitida, formaque multo magis parallela. Cyanea; elytris purpureo-cupreis, subtiliter alutaceis; capite post oculos citius recte angustato, haud tumido; thorace elongato-quadrato, postice vix sinuatim modice angustato, angulis subrectis, supra subfortiter transversim strigoso; elytris elongatis, parallelis, truncaturæ angulis externis valde rotundatis, fortiter vix punctulatim striatis, interstitiis paulo convexis, tertio conspicue tripunctato [recte bipunctato].

“Long. 6 lin.”

Hab. GUATEMALA, San Gerónimo, El Jicaro, Toco (Champion); SALVADOR (*Sallé*); NICARAGUA, Chontales (*Belt, Janson*¹); COSTA RICA, Cache (*Rogers*).

13. *Calleida cyanippe*.

Elongata, parallelogrammica, corpore toto pedibusque (tarsis piceis exceptis) cyaneo-nitido, palpis antennisque nigris, illis apice, harum articulo basali subtus testaceo-rufis; labro medio late excavato; thorace quadrato, lateribus modice arcuatis, ante angulos fere rectos perparum sinuatis, modice explanato-reflexis, dorso sat distincte strigoso, juxta lineam dorsalem et intra margines punctato; elytris apice sinuato-truncatis, angulis exterioribus obtusis, acute punctulato-striatis, interstitiis fere planis, tertio puncto anteriore paulo ante medium sito.

Long. 5½–6 lin.

Hab. MEXICO, Actopan, Trapiche (*Höge*), Almolonga (*Flohr*).

14. *Calleida misella*.

Callida misella, Chaudoir, Monogr. des Callidides, p. 26¹.

Hab. MEXICO, Toxpam¹, Cordova (*Sallé, Höge*), Oaxaca (*Höge*).

Among the numerous examples of this species I have examined, only one, namely that referred to above from Oaxaca, answers to Chaudoir's description with regard to the fractions of the interrupted striæ of the elytra not being surrounded by excavations; all the others, including those from M. Sallé, who supplied the describer with his specimens, have elytra almost as uneven on the surface as in *C. lacunosa*.

15. **Calleida variolosa.** (Tab. IX. fig. 14.)

C. misellæ affinis, sed differt fronte juxta oculum utrinque lævi, haud plicata. Obscurior, nigro-ænea, elytris æneis nitidis; antennis piceis, articulis $3\frac{1}{2}$ basalibus rufis; pedibus, elytrorum epipleuris, necnon (interdum) thoracis marginibus rufo-piceis; elytris sicut in *C. misella* parallelis, striis adhuc magis interruptis, fere seriatim foveolatis.

Long. $3\frac{1}{2}$ -4 lin.

Hab. GUATEMALA, Sabo, Sinanja (*Champion*).

16. **Calleida sumptuosa.** (Tab. IX. fig. 20.)

Elongato-oblonga, postice paullulum ampliata, nigro-picea, capite thoraceque ænescenti-nigris, elytris cupreo-auratis versus suturam viridescentibus, scapo subtus palpisque apice obscure rufis; thorace breviter quadrato, lateribus ante medium sat rotundatis, postice haud sinuatis, angulis posticis nullomodo exstantibus, margine sat late explanato-reflexo, dorso transversim subtiliter strigoso, basi et apice sparsim punctato; elytris apice sinuato-truncatis, angulis exterioribus obtusis, dorso versus basin et apicem depresso, extus prope apicem callo valido fere lævi, subtiliter punctulato-striato, interstitiis planis, tertii puncto anteriore paullo ante medium sito.

Long. $5\frac{1}{2}$ -6 lin.

Hab. MEXICO, Jalapa (*Höge*).

This handsome species resembles *C. resplendens* and *C. viridiaurea* in the strongly developed subapical marginal callus of the elytra, but differs in the widely explanated lateral margins of the thorax, and also in its sectional character, having one anal seta only on each side in the male and two in the female.

II. *Anus in mare postice utrinque multipunctatus* (7 vel 8), in femina bi- vel tripunctatus.

The single species constituting this new section differs from all others contained in Chaudoir's monograph by the male having, in addition to the one exterior setiferous puncture of the apical ventral segment, distinctive of the same sex in Section I., an inner cluster of six or seven punctures of various sizes.

17. **Calleida regina.** (Tab. IX. fig. 16.)

Major, viridi-ænea, nitida, capite thoraceque viridi-auratis, elytris igneo-cupreis splendidissimis, suturam versus viridescentibus, epipleuris viridi-æneis; antennis basi chalybeo-nigris, scapo subtus (palpisque apice) macula rufa; thorace quadrato, lateribus plerumque minime rotundatis, postice haud sinuatis, angulis posticis fere rectis, margine modice explanato-reflexo, dorso obsolete strigoso; elytris elongato-oblongis, apice sinuato-truncatis, angulo exteriori exstante dentiformi, dorso antice et postice depresso, versus apicem callo marginali sat valido, acute sed tenuiter punctulato-striato, interstitiis planis, tertii puncto anteriore paullo ante medium sito; tibiis tarsisque nigro-piceis.

Long. 7 lin.

Hab. GUATEMALA, Zapote, Senahu, Sinanja (*Champion*).

III. *Anus in mare postice utrinque bipunctatus, rarius tripunctatus, in femina tri- vel quadripunctatus.*

18. **Calleida metallescens.** (Tab. IX. fig. 10.)

Callida metallescens, Chaudoir, Monogr. des Callidides, p. 28¹.

Calleida planulata, Leconte, Proc. Ac. Nat. Sci. Phil. 1858, p. 59?².

Hab. MEXICO, Vera Cruz¹, Mexican boundary², Trapiche, Actopan (*Höge*), Almolonga (*Flohr*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, Panzos, El Jicaro (*Champion*).

Var. *C. atrata*, ♀. Tota chalybeo-nigra, thoracis marginibus concoloribus.

Hab. GUATEMALA, Paraiso (*Champion*).

The description of *C. planulata* above cited fits this species exactly, with the exception of the phrase "elytris interstitiis parce punctulatis." It is possible, therefore, that *C. planulata* may be a species allied to *C. brunnea*; still, with a powerful lens, a few very faint punctures may be discerned in *C. metallescens*. The var. *atrata* approaches the South-American *C. tristis*, and, if confirmed by further examples, may be treated as a distinct species.

C. metallescens may be distinguished from other Central-American species of similar coloration by the anterior puncture of the third elytral interstice being situated near the base, rather less than one fourth the elytral length.

The males have three setiferous punctures on each side of the anal ventral segment; the females vary in having four or five, or sometimes four on one side and five on the other.

19. **Calleida truncata.**

Calleida truncata, Chevrolat, Col. Mex. ii. no. 154¹.

Callida truncata, Chaudoir, Monogr. des Callidides, p. 31.

Hab. MEXICO, Las Animas¹, Cordova (*Sallé, Höge*), Actopan (*Höge*), Tehuantepec (*Sumichrast, coll. Sallé*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Zapote, La Tinta, San Juan, Chacoj, Lanquin, Las Mercedes, Volcan de Atitlan (*Champion*).

20. **Calleida semifacta.**

C. truncatæ affinisima, differt præcipue elytris profundius striatis, interstitiis convexis. Paulo latius oblonga, colore obscurior, cuprea minus nitida, thorace latius rotundato marginibusque lateralibus haud metallicis rufescentibus.

Long. 5½-6 lin. ♂ ♀.

Hab. MEXICO, Cordova, Actopan, Trapiche (*Höge*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Panzos, Panima, Teleman (*Champion*).

The extreme forms of this and the preceding differ widely in form, sculpture, and

colours; but some of the Actopan examples are intermediate in all respects. Average specimens, constituting the majority, are easily recognizable. Some, with rufescent explanated margins of the thorax, resemble, at first sight, *C. metallescens*.

21. **Calleida onypterygioides.** (Tab. IX. fig. 18.)

Callida onypterygioides, Chaudoir, Monogr. des Callidides, p. 31¹.

Callida aurata, Motschulsky, Bull. Mosc. 1864, ii. p. 236?².

Hab. NICARAGUA²; COSTA RICA (*Van Patten*); PANAMA, Volcan de Chiriqui, David (*Champion*).—SOUTH AMERICA, Colombia¹.

Motschulsky's description of *C. aurata* applies almost equally well to *C. jansoni*, but with regard to colours fits much better the present species. "Elytris aureo-violaceis vel fulgidis" does not apply to the lustreless purple-copper hue, changing into dark purple, which characterizes the elytra of *C. jansoni*. The sculpture of the elytra, however, suits neither; and it is possible *C. aurata* may be a third species different from either.

22. **Calleida tropicalis.** (Tab. IX. fig. 5.)

Elongata, antennis pedibusque gracilibus; rufo-ferruginea, elytris (nisi versus suturam) viridi-æneis splendidis (epipleuris ferrugineis), capite mox pone oculos angustato, collo distincto; thorace oblongo sat angustato, apice modice rotundato, angulis posticis subobtusis, margine laterali explanato-reflexo, lateribus transversim strigosis; elytris oblongis, apice sinuato-truncatis, angulo exteriori prominente obtuse dentato, suturali recto, dorso versus basin depresso, callo oblongo marginali-apicali, acute striatis, striis subtiliter punctulatis, interstitiis planis, tertii puncto anteriore paullo ante medium sito.

Long. 5½ lin. ♂ ♀.

Hab. MEXICO, Orizaba (*Sallé*), Jalapa (*Höge*).

I have adopted the MS. name given to this species by Baron Chaudoir in the Sallé collection. Although thus named, I think it very likely that the species is the original *C. dives*, described by Chaudoir in 1852 from a specimen in Dupont's collection, which had passed out of the describer's reach when he redescribed the species from a second example evidently not belonging to it.

The male has two anal punctures on each side, the female three or four. A male from Costa Rica (Cache) taken by Rogers is very puzzling, having only one anal seta on each side (and therefore referable to Section I.), although it presents no other difference of importance from the Mexican examples. Whether it be a mere aberration or a distinct species, cannot be decided until further specimens are forthcoming.

23. **Calleida chryseis.** (Tab. IX. fig. 17.)

C. tropicali affinis, minus elongata, elytris rufo- vel viridi-aureis, versus latera et apicem igneo-cupreis splendidissimis. Ferrugineo-rufa, capite quam in *C. tropicali* paullo minus rapide angustato; thorace oblongo, antice modice rotundato, angulis posticis obtusis, margine laterali explanato-reflexo, dorso utrinque plus minusve strigoso; elytris elongato-oblongis, apice truncatis, angulo exteriori paullulum producto sed obtuso, dorso profundius striatis, striis punctulatis, interstitiis paullulum convexis, tertii puncto anteriore

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, *March* 1883.

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paullo ante medium sito, callo marginali-apicali modice elevato; antennis gracilibus, articulis 4^o-11^m apice fuscis.

Long. 5-5½ lin. ♂ ♀.

Hab. GUATEMALA, Dueñas, Capetillo, Cerro Zunil, Coban (*Champion*).

The anal ventral segment in the male is obtusely sinuated in the middle, and not deeply notched.

Taken in great numbers by Mr. Champion, but not yet known from Mexico, and therefore less likely to be the original *C. dives* (Chd.), described from a Mexican example. Male examples occur which are aberrant as regards the anal punctures, viz. two on one side and three or four on the other.

24. *Calleida scintillans*.

C. chryseidi proxime affinis, sed minor, elytris viridi-auratis calloque marginali-apicali magis elevato etc. Ferrugineo-rufa, elytris viridi-auratis juxta apicem tantum aureis, resplendentibus, colore ferrugineo versus suturam sicut in affinibus sed minus translucente; thorace oblongo, antice paullulum rotundato, postice sat valde sinuato sed paullo angustato, angulis posticis exstantibus, margine laterali explanato-reflexo, dorso striguloso; elytris apice truncatis, angulo exteriori haud producto, dorso punctulato-striato, interstitiis subconvexis, tertii puncto anteriore versus basin sito, callo anteapicali magno elevato lævi.

Long. 4¼-5 lin. ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Allied to *C. cupreocincta* (South Brazil), the anal ventral segment having, as in that species, a deep indentation in the middle of its posterior edge. The species is larger than *C. lindigi* (10-11 millim., *C. lindigi* being 8 millim.), a Colombian species of the same group, and has a longer and more oblong thorax, a more elevated elytral callus, and more varied and brilliant coloration.

25. *Calleida semirubra*.

Calleida semirubra, Bates, Proc. Zool. Soc. 1878, p. 608¹.

"Elongato-oblonga, nigro-nitida, elytris (basi excepta) rufo-castaneis; abdomine rufo; capite post oculos magis quam in *C. metallica* incrassato, collo subito angustato; thorace quadrato, antice cum angulis rotundatis, postice sinuato modice angustato, angulis posticis obtusis; elytris apice fortiter sinuatim truncatis, angulis externis dentiformibus, supra paulo inæqualibus, punctulato-striatis, interstitiis planis.

"Long. 7 lin."

Hab. NICARAGUA, Chontales (*Belt*¹).

Taken from the stomach of a toad on the summit of a hill near St. Domingo, Chontales.

26. *Calleida championi*. (Tab. IX. fig. 8.)

Elongata, elytris latius oblongis deplanatis; nigerrima polita, elytris (limbo angusto basali excepto), abdomine, metasterno medio, trochanteribus posticis, tarsi tibiisque apice fulvis; capite (♀) post oculos tumido; thorace oblongo, antice et medio modice rotundato, ante angulos posticos subrectos paullo sinuato, margine laterali modice explanato sed haud reflexo, minime rufescente, dorso fere lævi; elytris apice sinuato-truncatis, angulo exteriori recto haud producto, dorso subtiliter punctulato-striatis, interstitiis planis, tertii

puncto anteriore sicut in *C. metallescenti* versus basin sito, punctoque magno umbilicato ad striæ primæ basin. Antennis basi subtus rufo maculatis.

Long. 6 lin. ♀.

Hab. PANAMA, Bugaba (*Champion*).

This remarkable species is closely allied to *C. semirubra*, and resembles it in form and colours. It differs in the thorax being narrower, the elytra relatively broader and with less prominent angles to the truncature, and in the black colour of the base forming only a moderately narrow border, extending on the sides very little below the shoulders and forming on the suture a narrow edging near the scutellum; the apical margin of the elytra remains fulvous instead of being black as in *C. semirubra*.

27. *Calleida semicineta*. (Tab. IX. fig. 9.)

C. championi affinis, sed multo minor elytrisque relative brevioribus latioribusque etc. Oblongo-ovata, deplana-ta, castaneo-fusca, antennis, tibiis apice et tarsis, abdomine, metasterno medio trochanteribusque omnibus fulvis, elytris castaneo-fulvis, macula magna utrinque humerali viridi-ænea; capite post oculos (♂) citius angustato haud tumido, fronte juxta oculum plicata; thorace brevius quadrato, antice modice angustato, postice sinuato sed vix angustato, angulis posticis rectis, margine laterali late explanato, rufo, parum reflexo, dorso passim transverse strigoso; elytris apice sinuato-truncatis, angulo exteriori omnino rotundato, dorso sat profunde striato, striis vix punctulatis, interstitiis sat convexis, tertii puncto anteriore paullo ante medium sito.

Long. 4 lin.

Hab. PANAMA, Bugaba (*Champion*).

The brassy green humeral spot of the elytra extends to the first stria, and on the side extends along the eighth interstice nearly to the middle, leaving the margin and epipleuræ of the tawny yellow ground-colour.

28. *Calleida viridicineta*.

Calleida viridicineta, Motschulsky, Bull. Mosc. 1864, ii. p. 238¹.

Callida viridicineta, Chaudoir, Monogr. des Callidides, p. 37.

Hab. PANAMA¹.

Apparently allied to *C. lindigi*, Chd., and also to the following; but the description does not fit either species.

29. *Calleida flohri*. (Tab. IX. fig. 19.)

Elongata, postice sat ampliata, quoad formam gen. *Euprocto* haud dissimilis. Testaceo-rufa, supra castaneo-vel purpureo-rufa, elytris late viridi-æneo marginatis, margine explanato laterali plagaque apicali splendissime igneo-aureis, pone humerum margine viridi usque ad striam tertiam extenso, a medio usque prope apicem striam sextam haud excedente; capite post oculos rotundato angustato (♀ tumido); thorace anguste cordato, antice modice angustato, postice longe sinuatim angustato, angulis posticis exstantibus, sed obtusis, margine laterali anguste explanato-reflexo, dorso plus minusve strigoso; elytris vix sinuatim truncatis, angulo exteriori obtusissimo, dorso antice late depresso, punctulato-striatis, interstitiis paullulum elevatis, tertii puncto anteriore versus basin sito.

Long. 4½-5 lin. ♂ ♀.

Hab. MEXICO, Jalapa (*Höge, Flohr*).

This elegant and well-marked species, which was taken abundantly by Herr Höge, although it appears to have escaped the many years' researches of M. Sallé, has in its outlines a considerable resemblance to the Central-American species of *Euproctus*. The ligular structure is that of *Calleida*, although the connate paraglossæ extend much further beyond the apex than is usual in the genus, and the tarsi are naked above.

The thorax, as usual in this genus, varies much in outline. In extreme cases it is, on the one hand, less rounded, and, on the other hand, much more rounded and almost angulated anteriorly; the hind angles are also more or less produced and obtuse; but in all variations it preserves the same cordate facies and the very narrow reflexed lateral margin.

30. *Calleida fimbriata*.

C. flohri affinis et simillima, differt tamen thorace oblongo, antice perparum rotundato, postice vix angustato, margineque laterali sat late explanato, dorso plus minusve strigoso. Supra castaneo-rufa, elytris margine viridi-æneis, sed margine explanato ipso castaneo.

Long. $4\frac{1}{2}$ –5 lin.

Hab. MEXICO, Jalapa (*Höge, Flohr*).

Approaches the South-Brazilian *C. cupreocincta* rather closely. In colours there is scarcely any difference; but it is more elongated and relatively narrower, the elytra are more deeply striated, and the green border is more sharply defined, being nearly limited to the eighth and ninth interstices.

31. *Calleida circumcincta*. (Tab. IX. fig. 12.)

C. flohri iterum affinis et similis, sed differt thorace medio tantum rotundato antice angustato postice valde sinuato, sed paullo angustato, angulis posticis subrectis apice obtusis, margine laterali late explanato-reflexo, dorso acute strigoso versus marginem utrinque longitudinaliter obtuse plicato. Rufo-testacea, elytris vitta marginali interstitia 8^m et 9^m solum tegente, apice suturam haud attingente, basi fere usque ad scutellum continuata, læte viridi-ænea, dorso punctulato-striatis, interstitiis subconvexis, tertii puncto anteriore versus basin sito; antennis ab articulo 4^o apice palpisque subinfuscatis.

Long. $4\frac{1}{2}$ lin.

Hab. MEXICO, Jalapa (*Höge*).

Similar in colours to the two preceding and to *C. cupreocincta*, but very distinct from all the allied species in the shape of the thorax, which is similar to that of *C. punctulata*, but narrower. The elytra are broadly oblong, twice the width of the thorax; and the marginal stripe is unusually well defined, or sharply contrasted with the ground-colour, being limited to the eighth and ninth interstices (leaving the explanated margin red) and very little broader at the shoulders, occupying only the extreme base of the other interstices to the scutellar striole.

The female has on each side of the anal segment a row of six or seven small setiferous punctures arranged in line.

32. *Calleida punctulata*.

Calleida punctulata, Chaudoir, Bull. Mosc. 1848, i. p. 86.

Callida punctulata, Chaudoir, Monogr. des Callidides, p. 40¹.

Hab. MEXICO, Trapiche, Actopan (*Höge*), Tehuantepec (*Sumichrast*, coll. *Sallé*), Yucatan¹; GUATEMALA, El Jicaro (*Champion*).

33. *Calleida högei*.

C. punctulatæ quoad formam similis, sed differt coloribus, thoracisque angulis posticis fere rectis etc. Late oblonga, castaneo-rufa, thorace disco utrinque obscure æneo, ventris segmentis apice nigricantibus, elytris viridi-olivaceis, sericeo-nitentibus, apice utrinque macula aurata; capite mox pone oculos subito angustato, haud punctato; thorace late quadrato, antice sat rotundato, postice sinuato angulis subacutis, margine laterali late explanato sed minus reflexo, dorso transversim subtiliter (lateribus grossius) strigoso et sparsim punctulato; elytris subrecte truncatis (extus obtusis), dorso acute punctulato-striatis, interstitiis punctulatis planis, tertio (♂) bipunctato, puncto anteriore paullo ante medium sito.

Long. 5 $\frac{3}{4}$ lin. ♂.

Hab. MEXICO, Jalapa (*Höge*).

One example only, a male, with two anal punctures on each side. In form and sculpture similar to *C. aurescens*, and not very unlike it in colours; but *C. aurescens* has only two anal punctures in the female (the only sex known), and belongs therefore to a different section.

34. *Calleida amethystina*.

Carabus amethystinus, Fabricius, Ent. Syst. i. p. 160 (1792)¹.

Calleida splendida, Gory, Ann. Soc. Ent. Fr. 1833, p. 189; Brullé, Voy. de d'Orbigny dans l'Amér. Mérid. Ins. p. 13.

Calleida auricollis, Castelnau, Etudes Ent. 1835, p. 46².

Calleida festiva, Brullé, Voy. de d'Orbigny dans l'Amér. Mérid. Ins. t. ii. fig. 7³ (1837-43).

Calleida dimidiata, Reiche, Rev. Zool. 1842, p. 275⁴.

Callida amethystina, Chaudoir, Monogr. des Callidides, p. 41⁵.

Hab. MEXICO, Misantla (*Höge*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, San Gerónimo (*Champion*); NICARAGUA, Chontales (*Belt*, *Janson*); PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia⁴, Venezuela⁵, Cayenne¹, Amazons, Brazil^{2 5}, Bolivia³.

Found on low trees and bushes in cultivated places, and remarkably constant in colours and form for an insect of such wide distribution.

35. *Calleida rustica*.

Subtus testaceo-rufa, supra castaneo-fusca, elytrorum lateribus late cuprascentibus, antennis ab articulo 3^o fuscis; capite impunctato, post oculos rotundato-angustato, haud tumido; thorace quadrato sat lato, medio rotundato, antice rotundatim angustato, postice sinuato, modice angustato, angulis posticis haud exstantibus, subrectis, margine laterali sat late explanato sed parum reflexo, dorso passim transverse strigoso, margine et basi punctatis; elytris oblongo-ovatis, gradatim sed paullo a basi usque ultra medium ampliatis,

apice subsinuatim truncatis, angulo exteriori distincto sed obtuso, dorso acute punctulato-striatis, interstitiis fere planis, distincte sed subtiliter punctulatis, tertio punctis duobus, anteriore versus basin sito.
Long. $4\frac{3}{4}$ lin. ♀.

Hab. MEXICO, Jalapa (*Flohr*).

Agrees pretty closely with the descriptions of *C. brunnea* (Dej.), except that the head is not tumid behind the eyes, nor the neck broad, and the elytral striæ are sharply impressed. The anal segment (in the female) has, moreover, four setiferous punctures on each side, and that of *C. brunnea*, according to Chaudoir, only two.

36. *Calleida sulcatula*.

Callida sulcatula, Chaudoir, Bull. Mosc. 1877, i. p. 231¹.

Hab. GUATEMALA¹.

37. *Calleida bella*. (Tab. IX. fig. 11.)

Callida bella, Chaudoir, Monogr. des Callidides, p. 48¹.

Hab. MEXICO, Toxpam¹, Cordova (*Sallé, Höge*); GUATEMALA, Sabo, Senahu, Balheu (*Champion*); COSTA RICA, Cache (*Rogers*).

38. *Calleida cordicollis*.

Calleida cordicollis, Putzeys, Mém. Soc. Roy. d. Sciences de Liège, ii. p. 373 (1845) .

Callida cordicollis, Chaudoir, Monogr. des Callidides, p. 54.

Calleida cyanoptera, Leconte, Proc. Ac. Nat. Sci. Philad. 1858, p. 59².

Hab. MEXICO¹, Cordova (*Sallé*), Jalapa (*Höge*), Minas Viejas (*Dr. Palmer*), Mexican boundary?²; BRITISH HONDURAS, river Sarstoon (*Blancaneaux*).

39. *Calleida basalis*.

Calleida basalis, Putzeys, Mém. Acad. R. d. Sci. de Liège, ii. p. 372 (1845)¹.

Callida basalis, Chaudoir, Monogr. des Callidides, p. 56².

Calleida semirufa, Motschulsky, Bull. Mosc. 1862, ii. p. 237³.

Hab. MEXICO¹, Playa Vicente (*Sallé*), Misantla (*Höge*), Yucatan²; BRITISH HONDURAS, Rio Hondo, Belize (*Blancaneaux*); GUATEMALA, Tamahu, Cahabon, Mirandilla, El Reposo, Panzos, Chacoj; NICARAGUA³, Chontales (*Belt, Janson*).

40. *Calleida sanguinicollis*.

Calleida sanguinicollis, Dejean, Sp. Gén. Col. v. p. 333¹.

Callida sanguinicollis, Chaudoir, Monogr. des Callidides, p. 57².

Hab. PANAMA (*M^cLeannan*), Matachin (*Schunke*), Volcan de Chiriqui, Bugaba, David (*Champion*).—SOUTH AMERICA, Colombia¹, Surinam², Amazons.

41. *Calleida pallidipennis*.

Calleida pallidipennis, Chaudoir, Ann. Soc. Ent. Fr. 1835, p. 437.

Callida pallidipennis, Chaudoir, Monogr. des Callidides, p. 58¹.

Calleida brunnea, Chevrolat, Col. Mex. i. fasc. 2 (nec Dejean)².

Calleida flava, Chevrolat, ibid., errata (1835).

Calleida testacea, Reiche, Rev. Zool. 1842, p. 308³.

Hab. MEXICO², Cordova (*Sallé*); GUATEMALA, Senahu, Chiacam, San Gerónimo, Zapote, Las Mercedes, Cerro Zunil (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia³, South Brazil¹.

Subfam. *GALLERUCIDIINÆ*.

This group was founded by Chaudoir in 1872, on the genera *Lebidia* and *Gallerucidia*, the former from Japan and the latter from Tropical America. Although these genera have much general resemblance to the Lebiinæ, especially to the genus *Lia*, the structure of the parts of the mouth, and the existence of squamulated palms to the four anterior tarsi, show a nearer relationship to the Calleidinæ, from which they are totally dissimilar in the general form of the body.

GALLERUCIDIA.

Gallerucidia, Chaudoir, Bull. Mosc. 1872, i. p. 419.

To the three already described species of this singular and, in its forms and colours, probably mimetic genus, our recent travellers in Mexico and Central America have added the two following.

1. *Gallerucidia erotyloides*.

Ovata vel scaphiformis, convexa, omnino testaceo-rufa, nitida; capite lævi, mox pone oculos maximos constricto; thorace fere semicirculari, lateribus late (postice latissime) explanatis parum reflexis, subpelucidis, angulis posticis obtusis, disco subtilissime strigoso; elytris apice vix perspicue truncatis, pygidium vero haud tegentibus, margine laterali explanato-reflexo, dorso subtiliter et creberrime punctulatis haud striatis sed interstitiis paullulum hic illic elevatis; scutello magno; metasterno antice inter coxas intermediis protruso ibique convexo.

Long. $3\frac{1}{2}$ – $3\frac{3}{4}$ lin.

Hab. MEXICO, Oaxaca (*Flohr*), Jalapa? (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

Resembles certain Erotylidæ of the genus *Omoiotelus*.

All Herr Höge's examples are labelled Jalapa; but I believe Oaxaca to be the correct locality.

The peculiar form of the anterior process of the metasternum above described is to be observed also in the genus *Lia* (especially *L. quadriannulata* and allies) and in *Cryptobatis* (*C. laticollis* and others).

.2. Gallerucidia championi. (Tab. IX. fig. 21.)

C. erotyloidi quoad formam simillima, sed differt elytris paullo grossius punctulatis et macula magna communi late cordiformi postmediana nigra ornatis.

Long. $3\frac{1}{2}$ – $3\frac{3}{4}$ lin.

Hab. GUATEMALA, Aceituno (*Champion*).

Subfam. *PENTAGONICINÆ*.

Since this subfamily was instituted by me in the 'Geodephagous Coleoptera of Japan,' M. de Chaudoir, in admitting the propriety of its separation, has remarked that the genus constituting it appeared to him to be a transition form between the Physodérides and the Lebiides. But it differs from both by its perfectly cursorial, instead of scansorial feet; and I am inclined to look upon it as a *Lebia* form adapted to its peculiar mode of life, its habits being to haunt *Boleti* for the minute boletophagous insects which constitute its prey.

PENTAGONICA.

Rhombodera, Reiche, Rev. Zool. 1842, p. 313 (nom. præocc.).

Pentagonica, Schmidt-Goebel, Faunula Coleopt. Birmaniae, p. 47 (1846).

Didetus, Leconte, Classif. Carabidæ U. S. p. 377 (1853).

Elliotia, Nietner, Journ. Asiat. Soc. Bengal, 1856, p. 525.

Trichothorax, Montrouzier, Ann. Soc. Ent. Fr. 1860, p. 235.

Xenothorax, Wollaston, Coleopt. Hesperidum, p. 15 (1867).

Wakefieldia, Broun, Manual of N. Zealand Coleopt. p. 62 (1880).

Very widely distributed, being found in tropical and temperate America and Southern and Eastern Asia, in Australia, New Caledonia, New Zealand, and in the Cape-Verd Islands.

More than twenty species have been described.

1. Pentagonica trivittata.

Lebia trivittata, Dejean, Sp. Gén. Col. v. p. 378¹.

Rhombodera virgata, Reiche, Rev. Zool. 1842, p. 313².

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia^{1 2}.

2. Pentagonica bifasciata. (Tab. IX. fig. 24.)

Pentagonica bifasciata, Chaudoir, Bull. Mosc. 1877, i. p. 214¹.

Hab. MEXICO¹, Cordova (*Sallé*).

3. Pentagonica gonostigma. (Tab. IX. fig. 22.)

Major, variegata; capite supra et infra nigro, opaco, labro palisque rufescenti-piceis, thorace antennis et pedibus fulvo-testaceis, elytris fusco-nigris, utrinque vitta lata valde curvata ab humeris (marginem haud

attingente) usque ad suturam paullo ante apicem ducta, relicta macula magna communi triangulari suturali cum margine basali per vittam suturalem connexa, et limbo toto, fusco-nigris, margine ipso laterali et apicali fulvo; thorace sicut in *P. bifasciata* valde transverso, margine ab angulo mediano usque ad basin paullulum flexuoso; elytris amplis, subtilissime punctulato-striatis, interstitiis convexis juxta apicem altioribus; pectore et abdomine fusco-nigris.

Long. $2\frac{3}{4}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

One example only.

4. *Pentagonica omostigma*. (*Pentagonica homostigma*, Tab. IX. fig. 23.)

P. gonostigmæ affinis et similis, sed elytrorum signaturis aliis etc. Testaceo-fulva, antennarum articulis 4 basalibus fusco-maculatis elytrisque utrinque macula rotundata humerali et fascia lata ante apicem (ad suturam et marginem dilatata) nigris, margine omnino testaceo-fulvo; capite subopaco; thorace valde transverso, margine ab angulo mediano usque ad basin flexuoso; elytris distinctius exarato-striatis, striis punctatis, interstitiis sat convexis, 9° (marginali) catenato-punctato.

Long. $2\frac{1}{2}$ lin.

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

5. *Pentagonica picticornis*. (Tab. IX. fig. 25.)

P. gonostigmæ iterum affinis. Parum convexa; capite supra et infra nigro; antennis nigris, articulis 4 basalibus rufis, 2^o-4^m pallidioribus; thorace rufo valde transverso, postice minus rapide angustato margineque valde flexuoso; elytris elongato-ovatis, striis punctulatis vix impressis sed interstitiis convexis, 9° (marginali) catenato-punctato, fusco-nigris, vitta lata humerali margineque toto testaceo-rufis; abdomine postice fusco-nigro.

Long. $2\frac{1}{2}$ lin.

Hab. GUATEMALA, El Jicaro (*Champion*).

One example only.

6. *Pentagonica semifulva*.

Rufescenti-fulva, elytris (margine excepto), meso- et metathorace abdomineque nigris, palpis et antennis nigro-fuscis; thorace transverso postice minus rapide angustato, margine mox pone angulum prominentem recto vel subsinuato, limbo antico sæpe infuscato; elytris vix impresso-striatis, sed interstitiis sat convexis, 9° catenato-punctato, femoribus et tibiis anticis sæpe subinfuscatis.

Long. 2- $2\frac{1}{3}$ lin.

Hab. MEXICO, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA, Cerro Zunil, Pantaleon (*Champion*).

This must approach very closely *P. bicolor*, Leconte, of the Western United States, and may be the same species; but the description does not mention that the meso- and metathorax are black as well as the abdomen.

7. *Pentagonica maculicornis*.

P. semifulvæ simillima, differt tantum antennis fulvis, scapo toto cæterisque articulis apice solum fuscis;

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, September 1883.

2 ff

thorace utrinque vitta lata distincta piceo-nigra. Rufescenti-fulva, elytris (margine excepto) meso- et metathorace nigris.

Long. $1\frac{3}{4}$ lin.

Hab. PANAMA, Bugaba (*Champion*).

One example only.

8. *Pentagonica albipes*.

P. piceæ (Chaud.) proxime affinis et similis, sed differt elytris subtilius striatis. Parva, piceo- vel castaneo-nigra, antennis testaceo-fulvis, scapo palpisque fuscis, pedibus testaceo-albis; thorace minus lato, lateribus ante et post angulum subrectis; elytris subtiliter punctulato-striatis, interstitiis interioribus usque ad apicem convexis, exterioribus planissimis; marginibus laterali et suturali angustissime rufescentibus.

Long. 2 lin.

Hab. GUATEMALA, Mirandilla (*Champion*); PANAMA, Bugaba (*Champion*).

Resembles much the Brazilian *P. picea*, and apparently also *P. flavipes*, Lec., of Louisiana, but differing from the latter strikingly in the colour of the antennæ.

Subfam. *LEBIINÆ*.

LOXOPEZA.

Loxopeza, Chaudoir, Monographie des Lébiides, p. 28 (Bull. Mosc. vol. xliv. 1871).

A genus exclusively American, and nearly restricted to the temperate zones, north and south, the majority of the species belonging to the United States and Mexico. Ten species were enumerated in Chaudoir's monograph.

1. *Loxopeza högei*. (Tab. X. fig. 1.)

Late oblonga, rufa, elytris læte viridi-æneis apicem versus nitidioribus, epipleuris marginibusque explanatis rufis, ventris segmentis posterioribus margine plus minusve infuscatis; capite sparsim punctulato rugulisque obsolete; thorace latissimo (duplo magis lato quam longo), a collo usque medium rotundato-ampliato, deinde lateribus usque ad angulos fere rectis, margine late explanato modice reflexo, angulis posticis apice obtusis, dorso grossius vermiculato-rugoso; elytris acute striatis, interstitiis valde convexis sed versus apicem deplanatis et apud apicem planissimis subtiliter alutaceis; tarsis posticis articulo penultimo bilobato, lobis apice rotundatis.

Long. $4\frac{1}{4}$ – $4\frac{1}{2}$ lin. ($8\frac{1}{2}$ – $9\frac{1}{4}$ millim.).

Hab. MEXICO, Jalapa (*Höge*).

The elytra are similar in colour and striation to the same parts in *L. tricolor*, excepting the red margins and epipleuræ.

2. *Loxopeza xanthogaster*.

L. högei proxime affinis, sed multo minor, elytris adhuc lætius viridi-æneis etc. Testaceo-rufa, elytris lætissime viridi-æneis; capite subtiliter flexuoso-striguloso, nitido; thorace valde transverso sed quam in *L. högei* angustiore, dorso crebrius et subtilius vermiculato-rugoso; elytris profundius striatis, interstitiis altius

convexis, juxta apicem tantum paullo deplanatis, marginibus viridibus, epipleuris versus basin obscure castaneis; tarsis posticis articulo penultimo bilobato, lobis oblongis apice late rotundatis.

Long. 4 lin.

Hab. MEXICO, Orizaba (*Sallé*).

3. *Loxopeza guatemalena*.

L. xanthogastris simillima, differt solum tarsorum posticorum articulo penultimo haud bilobato sed emarginato angulis paullo productis acuminatis. Testaceo-rufa, elytris lætissime viridi-æneis profunde striatis, interstitiis alte convexis; capite flexuoso-striguloso, thorace vermiculato; elytrorum epipleuris omnino viridi-nigris.

Long. 4 lin.

Hab. GUATEMALA, Las Mercedes (*Champion*).

4. *Loxopeza costulata*.

L. tricolori paullo latior. Testaceo-rufa, abdomine (segmento basali processuque intercoxali exceptis) nigro, elytris olivaceo-nigris; capite subgrosse rectius strigoso et punctulato; thorace quam in *L. tricolori* latiore, lateribus arcuatis, antice quam postice magis angustato, margine basali inter lobum et angulum valde flexuoso, disco flexuoso-strigoso et punctulato; elytris profunde striatis striis fundo crenulatis, interstitiis valde convexis, versus apicem deplanatis, 7° versus basin conspicue angustato, epipleuris margineque nigris; tarsorum posticorum articulo penultimo emarginato.

Long. 4-4½ lin. ♂ ♀.

Hab. MEXICO, Jalapa (*Höge*).

5. *Loxopeza urania*. (Tab. X. fig. 2.)

Oblongo-ovata, minus deplanata, testaceo-rufa, abdomine (basi juxta coxas vix rufescente) nigro, elytris (margine epipleuraque inclusis) cæruleis; capite subtilius subrecte striguloso punctulatoque; thorace transverso ante medium usque ad collum citius angustato minus rotundato, dorso minus grosse vermiculato-strigoso; elytris elongatis versus apicem paullo ampliatis, crenulato-striatis, interstitiis valde convexis prope apicem planioribus; tarsorum posticorum articulo penultimo emarginato, angulis sat productis.

Long. 5 lin. ♂.

Hab. MEXICO (*Höge*).

One example only. With the exception of the hind tarsi being certainly not bilobed, it fits well Chaudoir's description of *L. grandis* (Hald.), which, Dr. Horn tells me, is not the *L. grandis* of Haldeman.

6. *Loxopeza translucens*. (Tab. X. fig. 4.)

L. costulata multo minor, testaceo-rufa, ventris segmentis apice infuscatis, elytris viridi-æneis ferrugineo (præcipue postice) translucentibus, marginibus epipleuris testaceo-rufis; capite thoraceque obsolete strigulosis, nitidis, hoc quam in *L. tricolori* latiore postice vix angustato, lateribus late rotundatis et explanato-reflexis, angulis posticis acutis (apice obtusis) margine basali inter lobum et angulum fere recto; elytris acute striatis, interstitiis valde convexis sed haud tectiformibus; tarsorum posticorum articulo penultimo bilobato, lobis linearibus apice obtusis.

Long. 3½ lin. ♂ ♀.

Hab. MEXICO, Jalapa (*Höge*).

7. *Loxopeza cyane*. (Tab. X. fig. 3.)

L. majusculæ (Chd.) (*L. grandis*, Hald.?) quoad formam et sculpturam simillima, sed differt elytris saturatius cæruleis subviolaceis, minus nitidis. Testaceo-rufa, antennarum articulis 4^o-11^m fuscis, ventre (processu intercoxali excepto) nigro, elytris saturate cæruleis minus nitidis; capite fere lævi; thorace transverso, antice sat late rotundato, postice subrecte, modice sed distincte angustato, angulis posticis perparum productis, disco subtiliter vage striguloso; elytris quam in *L. majuscula* longius oblongis, acute striatis, interstitiis modice convexis, versus latera deplanatis; tarsorum posticorum articulo penultimo emarginato, angulis vix elongatis.

Long. 4½ lin.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*), Mexico city (*Flohr, Höge*).

Closely allied to the Texan *L. majuscula* (Chaud.), which, I understand Dr. Horn, refers to the prior-described *L. grandis* of Haldeman. It is, however, sufficiently distinct by its rather more elongate form and the different colour of its elytra, the Texan species being bright brassy green with a bluish tinge. I have compared together half a dozen examples of each.

8. *Loxopeza rufosutura*.

Loxopeza rufosutura, Chaudoir, Monogr. des Lébiides, p. 31¹.

Lebia rufosutura, Motschulsky, Bull. Mosc. 1864, ii. p. 225².

Hab. MEXICO (*Sallé*¹), Vera Cruz, Cordova (*Sallé*), Oaxaca, Juquila (*Boucard, coll. Sallé*), Jalapa (*Höge*); GUATEMALA¹; NICARAGUA².

I adopt the name as given to specimens in the Sallé collection; but the description of Motschulsky seems scarcely to apply to the Mexican examples (the only ones I have seen), not one of which has a red suture.

9. *Loxopeza chloroptera*.

Loxopeza chloroptera, Chaudoir, Monogr. des Lébiides, p. 32¹.

Lebia chloroptera, Chaudoir, Ann. Soc. Ent. Fr. 1835, p. 437.

Lebia nigriventris, Putzeys, Mém. Soc. R. des Sci. de Liège, 1846, ii. p. 382².

Hab. NORTH AMERICA, FLORIDA? (*Reiche*¹).—MEXICO^{1 2}, Ventanas (*Forrer*), Guajuco in Nuevo Leon (*Dr. Palmer*), Guanajuato (*Dugès, coll. Sallé*), Mexico city (*Flohr*), Tlacotalpam, Oaxaca (*Boucard, coll. Sallé*), Yucatan (*Pilate*¹).

According to the series in the Sallé collection and the specimens collected by others in different parts of Mexico, this appears to be a very variable species, at least as far as regards the colour of the elytra and the more or less reddish hue of the epipleuræ and margins. The rather broader thorax seems to be the only character which separates it from *L. rufosutura*.

10. *Loxopeza atriventris*.

Lebia atriventris, Say, Trans. Amer. Phil. Soc. ii. p. 13¹ (1823); Dejean, Sp. Gén. Col. ii. p. 454.

Loxopeza atriventris, Chaudoir, Monogr. des Lébiides, p. 32².

Hab. NORTH AMERICA, Eastern States¹.—MEXICO².

11. *Loxopeza melanocephala*.

Loxopeza melanocephala, Chaudoir, Monogr. des Lébiides, p. 33¹.

Hab. MEXICO¹, Cuernavaca, Yolos, Durasnal, Oaxaca (*Boucard*, coll. *Sallé*), Mirador, Jalapa (*Höge*).

12. *Loxopeza rufolimbata*.

Loxopeza rufolimbata, Chaudoir, Monogr. des Lébiides, p. 33¹.

Hab. MEXICO, Cuernavaca (*Boucard*, coll. *Sallé*¹), Guanajuato (*Dugès*, coll. *Sallé*), Cordova (*Sallé*), Jalapa (*Höge*).

13. *Loxopeza exarata*. (Tab. X. fig. 5.)

L. melanocephalæ quoad colores similis, sed differt elytrorum striis usque ad apicem et latera profunde insculptis interstitiis æqualiter et valde convexis etc. Oblongo-ovata, testaceo-rufa, capite supra, genis lateribus abdomineque nigris, elytris obscurius viridi-æneis, antennarum articulis 4^o-11^m interdum piceis; capite longitudinaliter strigoso, vertice sublævi; thorace fere semiovato, antice rotundato (haud ampliato), postice haud vel perparum angustato, angulis posticis rectis, disco subtiliter strigoso; epipleuris versus basin rufo-piceis; tarsorum posticorum articulo penultimo emarginato.

Long. 3½ lin.

Hab. MEXICO, Jalapa (*Höge*).

Var. yoloensis. Caput supra grossius strigosum et punctatum, infra nigrum linea angusta mediana rufa; thorax crebre coriaceo-strigosus, minus nitidus, angulis posticis paullo exstantibus.

Hab. MEXICO, Yolos (*Boucard*, coll. *Sallé*).

14. *Loxopeza eburata*. (Tab. X. fig. 6.)

L. obliquatæ affinis. Breviter oblongo-ovata, testaceo-rufa, nitida, antennarum articulis 3^o-11^m femorum apice, tibiis et tarsis (unguiculis rufis exceptis) elytrisque nigris, his utrinque vitta eburnea, a basi interstitii 5ⁱ usque fere ad apicem interstitii 4ⁱ ducta; palpis piceis, apice rufis; capite fere lævi; thorace valde transverso (duplo magis lato quam longo), antice late rotundato fere angulato, postice haud angustato lateribus et angulis posticis rectis, margine laterali explanato-reflexo latissimo, dorso vage ruguloso; elytris profunde striatis, interstitiis valde convexis, quarto quam cætera latiore; tarsorum posticorum articulo penultimo emarginato.

Long. 3¼ lin. ♀.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

The white stripe on each elytron runs for a short distance from the base along the fifth interstice; it then leaves the fifth for the fourth, on which it commences lower down than it did on the fifth, and continues very nearly to the apex.

METABOLA.

Metabola, Chaudoir, Monogr. des Lébiides, p. 50.

The following species is the only one at present known of this genus.

1. *Metabola rufopyga*.

Metabola rufopyga, Chaudoir, Monogr. des Lébiides, p. 50¹.

Hab. MEXICO¹, Cordova, Capulalpam, Coscomatepec (*Sallé*), Mirador (*Höge*).

LEBIA.

Lebia, Latreille, Hist. Nat. Ins. viii. p. 247.

An extensive and well-known genus, comprising about 200 described species. Tropical America appears to be its headquarters, a much smaller number being found in Tropical Asia and Africa, and in temperate latitudes of the New and Old worlds. One species only is known from Australia.

1. ***Lebia quadricolor***. (Tab. X. fig. 7.)

Lebia quadricolor, Chevrolat, Col. Mex. i. 2^o fasc. ¹; Chaudoir, Monogr. des Lébiides, p. 66 ².

Hab. MEXICO ^{1 2}, Cordova (*Sallé*), Jalapa (*Höge*); GUATEMALA (*Sallé*), Sabo, Cahabon, Chacoj, Senahu, Tamahu (*Champion*).

2. ***Lebia apicalis***.

Lebia apicalis, Chevrolat, Col. Mex. i. 2^o fasc. ¹; Chaudoir, Monogr. des Lébiides, p. 67; Castelnau, Etud. Ent. p. 48.

Hab. MEXICO ¹, Cordova (*Sallé*), Jalapa (*Höge*).

3. ***Lebia brachinoides***. (Tab. X. fig. 8.)

Lebia brachinoides, Reiche, Rev. Zool. 1842, p. 311 ¹; Chaudoir, Monogr. des Lébiides, p. 70 ².

Hab. NICARAGUA, Chontales (*Belt, Janson*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia ^{1 2}.

Of the three colour-varieties described by Chaudoir, only the first two were found by our collectors at Chontales and Chiriqui; the type form, singularly enough, only at Chontales,—all the Panama specimens, which have an anterior fascia like the type, wanting the extension of the pale apical spot to the outer apical angle.

4. ***Lebia pleurodera***.

Lebia pleurodera, Chaudoir, Monogr. des Lébiides, p. 73 ¹.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Cerro Zunil (*Champion*).—WEST INDIES, Cuba? ¹; SOUTH AMERICA, Cayenne ¹.

Mexican and Guatemalan specimens agree precisely with Chaudoir's description.

5. ***Lebia marginicollis***.

Lebia marginicollis, Dej. Sp. Gén. Col. i. p. 271 ¹; Chaudoir, Monogr. des Lébiides, p. 74 ².

Lebia limbicollis, Motschulsky, Bull. Mosc. 1859, ii. p. 145.

Var. *L. affinis*, Dej. Sp. Gén. Col. v. p. 387 ³.

Hab. NORTH AMERICA, Southern States ^{1 2 3}.—MEXICO ²; NICARAGUA, Chontales (*Janson*).—SOUTH AMERICA, Amazons ².

6. *Lebia striatifrons*.

Lebia striatifrons, Chaudoir, Monogr. des Lébiides, p. 75¹.

Hab. PANAMA (*coll. Bates*).—SOUTH AMERICA, Amazons¹.

7. *Lebia charilla*. (Tab. X. fig. 9.)

Parva, nigro-fusca, subolivacea, antennarum articulis 3 basalibus pedibus elytrorumque maculis utrinque duabus (prima majore discoidali ante medium valde obliqua angulata interstitia 3^m-7^m tegente, secunda minore subrotunda prope apicem et suturam) testaceo-fulvis; capite lævi, occipite haud convexo; thorace parvo, fere quadrato, lateribus (versus apicem rotundatis) fere rectis, margine angusto sed apud angulum posticum rectum explanato; elytris oblongo-ovatis, haud profunde striatis; tarsorum articulo penultimo longe bilobato, unguiculis pectinatis.

Long. 1 $\frac{2}{3}$ lin. (3 $\frac{1}{4}$ -3 $\frac{1}{2}$ millim.).

Hab. GUATEMALA, San Gerónimo, Tocoy (*Champion*); PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

Var. 1, macula discoidali indistincta.

Hab. MEXICO, Orizaba (*Sallé*), Jalapa, Cerro de Plumas (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

Var. 2, elytris immaculatis.

Hab. MEXICO, Cerro de Plumas (*Höge*).

Similarly marked to *L. brachinoïdes*, and the markings varying in a similar way. The species, however, does not belong to the same subsection of Chaudoir's classification as *L. brachinoïdes*—its head not being striated, nor the thorax cordate,—but to the section containing *L. agnata*.

8. *Lebia viridis*.

Lebia viridis, Say, Trans. Amer. Phil. Soc. ii. p. 14¹; Dej. Sp. Gén. Col. i. p. 271²; Chaudoir, Monogr. des Lébiides, p. 83³.

Lebia viridis, var. *L. cyanea*, Dej. Sp. Gén. Col. v. p. 386⁴.

Lebia viridis, var. *L. smaragdula*, Dej. ibid. v. p. 387⁵.

Lebia viridis, var. *L. mæsta*, Leconte, Agassiz, Lake Superior, p. 206⁶.

Lebia viridis, var. *L. violaceipennis*, Chaudoir, Monogr. des Lébiides, p. 82⁷.

Hab. NORTH AMERICA^{1 2 3 5}, Lake Superior⁶ to Texas.—MEXICO, Ventanas (*Forrer*), Mirador (*Höge*); GUATEMALA⁷.—WEST INDIES, Cuba⁴.

9. *Lebia flammea*.

L. viridis exemplaribus minoribus quoad formam simillima, sed differt elytris igneo-aureis vel cupreis splendidissimis, antennisque brevioribus et crassioribus.

Long. 3 millim.

Hab. MEXICO, Puebla (*Sallé*), Guanajuato (*Dugès, coll. Sallé*).

Named *L. violaceipennis*, Chaud., in the Sallé collection, but does not agree with

Chaudoir's description as far as colour is concerned. There is, however, some ground for considering it an extreme variety of *C. viridis*, as the blue form of the species in Mexico is smaller and more brilliant than the northern type, and is subject to variations in colour.

10. *Lebia dugesi*.

L. viridi simillima, sed differt antennarum articulis 1^o-3^m testaceis, thoracisque angulis posticis productis dentiformibus. Oblonga, cærulea, elytris profundius punctulato-striatis, interstitiis subconvexis.

Long. 5 millim.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

One example only.

11. *Lebia ignita*. (Tab. X. fig. 10.)

L. viridi affinis, sed relative brevior, thorace præcipue valde transverso colloque supra depresso. Læte cærulea, elytrorum dimidio apicali rufo-aureo splendidissimo.

Long. 4-4½ millim.

Hab. GUATEMALA, Dueñas, Capetillo, Cerro Zunil (*Champion*).

Distinctly shorter and relatively broader than *L. viridis*, the thorax especially being at least twice as broad as long (excluding the basal lobe), and the margin near the hind angles more widely explanated. The crown of the head is also distinctly convex, or the neck depressed. The elytra are similarly striated, with flat interstices. The colour is a rich blue, with the apical half of the elytra fiery golden purple. Tarsi bilobed as in *L. viridis*.

12. *Lebia cœlina*. (Tab. X. fig. 11.)

Parva, late ovata, convexa, saturate cærulea (elytris interdum violaceis), antennis articulis basalibus labroque piceis, palpis acutis; capite brevi, lævi, post oculos cito angustato sed collo supra haud depresso; thorace transverso (latiore quam in *L. viridi*), trapezoidali, postice usque ad angulos valde acutos paullo dilatato, lateribus subrectis, margine basali prope angulum sinuato; elytris ampliatis subtilissime striatis; tarsorum articulo penultimo elongato-bilobato.

Long. 3 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Belongs to the *L. viridis* group, but distinguished by its short plump form and the trapeze-like outline of the short and broad thorax.

13. *Lebia xanthogona*.

L. pumila similis, sed differt thorace multo latiore angulisque posticis fulvo-testaceis etc. Breviter ovata, ænescenti-fusca nitida, antennarum articulis 3 basalibus, pedibus (femoribus medio tarsisque infuscatis) thoracisque angulis posticis pallide fulvo-testaceis; capite lævi; thorace valde transverso, postice paullo angustato (lateribus subrectis), angulis posticis vix rectis, margine basali juxta angulum obliquo recto; elytris subtiliter punctulato-striatis, interstitiis subconvexis; tarsorum articulo penultimo bilobato.

Long. 4 millim.

Hab. MEXICO, Orizaba (*Sallé*), Jalapa (*Höge*).

14. **Lebia agnata.**

Lebia agnata, Chaudoir, Monogr. des Lébiides, p. 86¹.

Hab. MEXICO¹, Orizaba, Puebla (*Sallé*), Mirador, Jalapa (*Höge*).

15. **Lebia croceicollis.** (Tab. X. fig. 13.)

L. pumilæ affinis, quoad formam *L. xanthogonæ* simillima, sed differt colore nigro (capite elytrisque subænescentibus), palpis nigro-fuscis, antennarum articulis $3\frac{1}{2}$ basalibus thoraceque croceis, pedibus piceo-fuscis, femoribus 4 anticis basi pallidis; capite ovato, lævissimo, post oculos gradatim rotundato-angustato; thorace valde transverso, postice paullulum angustato, angulis posticis paullo exstantibus, margine laterali angusto subrecto; elytris obsolete punctulato-striatis; tarsis bilobatis.

Long. $3\frac{1}{2}$ millim.

Hab. MEXICO, Jalapa (*Höge*).

Var. Femora et tibiæ pallide testacea, elytrorumque interstitia paullulum convexa.

Long. $4\frac{1}{4}$ millim.

Hab. GUATEMALA, San Gerónimo (*Champion*).

One example only.

16. **Lebia goniessa.** (Tab. X. fig. 12.)

Parva, breviter ovata, convexa, nigra, nitida; capite, thorace, antennarum articulis 4 basalibus (cæteris fuscis) pedibusque fulvo-rufis, femoribus posticis dimidio basali tibiisque dimidio apicali sæpissime nigro-fuscis; capite ovato lævissimo; thorace vix transverso trapezoideo (postice dilatato), margine recto antice angusto postice valde dilatato angulisque retrorsum productis, margine basali prope angulos paullo retrorsum obliquo; elytris subtilissime punctulato-striatis; tarsis bilobatis.

Long. $3\frac{3}{4}$ –4 millim.

Hab. GUATEMALA, San Gerónimo (*Champion*).

Belongs to the *viridis* group, and allied to *L. agnata*; differing from other species with red head and thorax in the shape of the hind thoracic angles, which are produced backward almost as in *L. cælina*. The head is perfectly free from striæ; and the striæ of the elytra are scarcely impressed, although the interstices are slightly convex. The elytra with margins and epipleuræ and the abdomen are deep black. The two punctures of the third interstice are small, but very distinct, and situated in the third stria.

17. **Lebia microtes.**

L. goniessæ quam maxime similis et affinis, sed thoracis angulis posticis rectis nec retrorsum productis, fronteque striato; Parva, nigra, nitida, capite, antennis, thorace et pedibus rufo-fulvis, palpis nigris; capite ovato, fronte præcipue prope oculos subtiliter pluristrigoso; thorace valde transverso postice, haud dilatato, angulis posticis rectis ibique margine explanato-reflexo, margine basali prope angulos recto; elytris breviter ovatis, striis distinctius et acutius impressis.

Long. 3 millim.

Hab. GUATEMALA, Panima, Chacoj, Aceituno, Volcan de Atitlan (*Champion*).

It is difficult to believe this is more than a local modification of *L. goniessa*; the differences of form and sculpture, however, indicated in the above diagnosis appear to

be constant. As minor differences, may be pointed out its smaller size and the wholly pale antennæ and legs; the antennal joints five to eleven, however, are sometimes a little darker than the basal joints.

18. **Lebia fimbriolata.** (Tab. X. fig. 14.)

L. nigripennis (Dej.) affinis, quoad formam *L. agnata* similis. Oblonga, rufo-testacea, abdomine et elytris nigris, his macula basali, margineque laterali usque ultra medium, rufo-testaceis, antennis articulis 4^o-11^m palpisque piceo-nigris; capite lævissimo, mox pone oculos subito angustato; thorace transverso, postice paullo angustato, marginibus modice explanato-reflexis, angulis posticis fere rectis, margine basali prope angulos antrorsum obliquato et rotundato; elytris subdepressis subtiliter alutaceis, striis acutis subpunctulatis, interstitiis planis.

Long. 4-5 millim.

Hab. GUATEMALA, near the city (*Salvin, Champion*), Capetillo (*Champion*).

The elytra are shining black, with a slight olive-green tinge; the epipleuræ are pale brown, and this colour is visible on the margins from the middle to the base of the elytra (not at all on or near the apex, which remains black), and in the middle of the base on each side the pallid colour extends a little over the basal plica to the striated surface of the elytra. The thorax has rather wider explanated lateral margins than is seen in the group *viridis*; but it is distinctly narrowed behind, and the hind angles are rendered slightly prominent by a short sinuation of the margin near the angle.

19. **Lebia cymindoides.**

L. fimbriolata proxime affinis et simillima, sed differt elytrorum interstitiis convexis, margineque toto et linea vel macula basali apud interstitium 6^m pallide testaceis.

Long. 5 millim.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*), Puebla, Capulalpam (*Sallé*), Jalapa (*Flohr*).

Of similar oblong subdepressed form to *L. fimbriolata*, with olivaceous black elytra and abdomen, but differs in the testaceous yellow border of the elytra being continued to the apex, becoming wider towards the shoulders and the base, and emitting a rather long lineole along the basal part of the sixth interstice. In some examples the pale colour near the base is extended, forming a broad humeral spot. The markings are very similar to those of the typical species of *Cymindis*. The interstices of the elytra are more elevated than in *L. fimbriolata*; but, although this character is one on which Chaudoir founds his main divisions of the genus, it appears to be, in the present case, very variable and of small importance.

20. **Lebia oliviella.**

Parva, ovata, rufo-testacea, elytris olivaceo-æneis nitidis, interstitiis valde elevatis, metasterno abdomineque nigris; antennis articulis 4^o-11^m leviter infuscatis, palpis nigris.

Long. 3½ millim.

Hab. PANAMA, David (*Champion*).

The decidedly convex interstices of the elytra would compel us to remove this species from the neighbourhood of *L. croceicollis*, *goniessa*, &c., its nearest allies, if Chaudoir's classification were to be rigorously adhered to. The species much resembles *croceicollis*; but the head is testaceous red, and the elytra a little more æneous in colour. The head is free from striæ, and narrowed rather abruptly behind the eyes. The thorax is transverse quadrate, about twice as broad as long (excluding the basal lobe), and the lateral margins more broadly explanated than in *C. croceicollis*, *viridis*, and their immediate allies, resembling in this respect *L. fimbriolata*; the flattened margin expands widely at the hind angles, but these are rectangular (a little produced at the apex), and not prolonged behind as in *L. goniessa*. Although the interstices of the elytra are strongly elevated, the striæ are scarcely at all impressed.

21. *Lebia flohri*.

L. olivellæ quam maxime similis, sed differt capite supra et infra æneo-olivaceo-nigro.
Long. $3\frac{1}{2}$ millim.

Hab. MEXICO (*Flohr*).

The head is of the same olivaceous brassy hue as the elytra, and free from striæ. The thorax and legs, except the tarsi, which are blackish, and the three basal (and half the fourth) joints of the antennæ are pale reddish, the rest of the antennæ being blackish.

22. *Lebia retusa*. (Tab. X. fig. 15.)

L. bifasciatæ (Dej.) affinis, quoad formam similis. Flavo-testacea, elytris lætissime cæruleis immaculatis, femoribus supra et apice nigris, tibiis et tarsis fusco-nigris (interdum tibiis partim pallidioribus); antennis nigris, basi et apice rufo-testaceis; capite brevi et lato, lævi, oculis valde prominentibus; thorace valde transverso, lateribus rotundatis late explanatis, postice perparum angustatis; elytris subtilissime striatis, apud striam quartam longitudinaliter retusis; tarsorum articulo 4^o longe bilobato.

Long. $5\frac{1}{2}$ millim.

Hab. GUATEMALA, Zapote (*Champion*); PANAMA, Bugaba (*Champion*).

23. *Lebia pœcilura*. (Tab. X. fig. 16.)

L. bifasciatæ (Dej.) affinis. Rufo-testacea, elytris cyaneis prope apicem solum flavo-fasciatis, fascia (juxta angulum suturalem excepta) marginem apicalem attingente; palpis, antennis pedibusque nigris, scapo femorumque basi rufo-testaceis; capite supra sparse punctulato, oculis valde prominentibus; thorace valde transverso, lateribus rotundatis, margine explanato, angulis posticis paullo exstantibus, dorso perparum striguloso; elytris subtiliter punctulato-striatis, interstitiis planis subtilissime alutaceis; labro medio nigro-fusco; pygidio maculis 2 viridi-fuscis.

Long. $5\frac{1}{2}$ millim.

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

24. *Lebia callizona*. (Tab. X. fig. 17.)

Lebia callizona, Bates, Proc. Zool. Soc. 1878, p. 607¹.

"*L. bifasciatæ* (Dej.) proxime affinis, differt fascia postica metallica apud suturam antice fere divisa. Lævis, testaceo-rufa, capite fasciisque duabus elytrorum latis et macula apicali cæruleis, fascia prima postice

medio emarginata, fascia secunda antice ad suturam fere divisa; antennis nigris articulo basali rufo; pedibus cæruleis, femoribus basi rufis; abdomine apice subtus rufo concolori, supra nigro.

“Long. 3 lin.”

Hab. GUATEMALA¹, Dueñas, Capetillo (*Champion*).

Var. *a.* Abdominis apice subtus plus minusve nigro.

Hab. MEXICO, Ventanas (*Forrer*); GUATEMALA, Dueñas.

Var. *b.* Elytris conspicue punctato-striatis, interstitiis subconvexis, fasciaque cyanea basali postice perparum emarginata; fascia fulva plerumque latiore; cæteris sicut in typo.

Hab. El Jicaro, San Gerónimo (*Champion*).

Var. *a* does not differ from *L. bifasciata*, Dej., from Guiana and the Amazons, except in the posterior metallic belt of the elytra having its anterior margin strongly arcuated on each elytron. Var. *b* is connected by intermediate varieties with the type form. *L. gaudichaudi* (Casteln.), of South Brazil, is distinguished from the Guianan *L. bifasciata* by characters of less importance than those which are evidently mere variations in the Guatemala species; all three can only therefore be geographical forms of one and the same species, inhabiting the low forest-region throughout Tropical America.

25. *Lebia bitæniata*.

Lebia bitæniata, Chevrolat, Col. Mex. ii. no. 14 (1834)¹; Chaudoir, Monogr. des Lébiides, p. 98.

Lebia bicincta, Castelnau, Etud. Entom. p. 47 (1834)².

Lia femorata, Motsch. Bull. Mosc. 1864, ii. p. 228³.

Hab. MEXICO^{1,2}, Vera Cruz, Tuxtla, Cordova (*Sallé*); GUATEMALA.—CENTRAL AMERICA³.

Var. Elytris sicut in *L. bifasciata*, fascia cyanea posteriori antice minus rotundata.

Hab. GUATEMALA, Dueñas (*Champion*); NICARAGUA, Chontales (*Belt, Janson*); COSTA RICA, Volcan de Irazu (*Rogers*).

The var. resembles *L. callizona*, var. *a*, and *L. bifasciata* in every point, except the colour of the head and apex of abdomen (both red in *L. bitæniata*); they appear to have been taken in company by Mr. Champion.

26. *Lebia bipunctata*.

Lebia bipunctata, Chevrolat, Col. Mex. ii. no. 133; Chaudoir, Monogr. des Lébiides, p. 96¹.

Hab. MEXICO (*Sallé*¹).

27. *Lebia charina*. (Tab. X. fig. 18.)

Lebia charina, Bates, Proc. Zool. Soc. 1878, p. 607¹.

“*L. quinquenotata* (Chaud.) simillima, differt elytrorum maculis minoribus posticisque ad suturam conjunctis. Late ovata, flavo-testacea; palpis, articulis 4^o–11^m antennarum, capite, femoribus apice, tibiis et tarsis, abdominis segmento anali, et elytrorum utrinque maculis 3 nigris; thorace quam in *L. quinquenotata* angustiore; elytris obsolete striato-punctatis; elytrorum maculis, 1 ovata communi scutellari, 1 virguli-

formi humerali, et 1 postmediana transversa, antice apud suturam indentata, latera haud attingente, apice autem anguste nigro.

“Long. $3\frac{1}{4}$ lin.”

Hab. MEXICO, Cordova (*Sallé*); GUATEMALA, Pantaleon (*Champion*); PANAMA, Volcan de Chiriqui, David, Bugaba (*Champion*); NICARAGUA, Chontales (*Belt*¹).

28. *Lebia clio*. (Tab. X. fig. 19.)

L. variegata (Dej.) quoad colores et signaturam simillima, sed macula elytrorum suturali-apicali deficiente. Flavo-testacea (abdomine apice concolore), capite (lævi) supra et infra, palpis antennisque nigris his articulis 1^o-3^m et 4^o basi flavis; thorace transverso, postice parum angustato, angulis posticis sat productis, margine basali juxta angulum rotundato-obliquo; elytris subtiliter punctato-striatis, interstitiis passim planis, flavis, macula circumscutellari, altera subvirguliformi humerali, vitta suturali fasciaque lata undulata versus apicem nigris, sutura post fasciam haud nigra.

Long. $6\frac{1}{2}$ millim.

Hab. MEXICO, Playa Vicente (*Sallé*), Jalapa (*Höge*).

Extremely near *L. variegata* (Dej.), but the striæ much less impressed, the interstices flat, and the apical sutural black spot wanting.

29. *Lebia variegata*.

Lebia variegata, Dej. Sp. Gén. Col. v. p. 375; Chaudoir, Monogr. des Lébiides, p. 91¹.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Las Mercedes (*Champion*); PANAMA, Bugaba, David, Caldera (*Champion*).—SOUTH AMERICA, Colombia¹.

In all the specimens from Jalapa the black sutural stripe terminates at the posterior fascia, and the apical sutural spot is reduced to a narrow black apical edging; the palpi also are darker. This variety forms a transition, therefore, to the *L. clio* of the same locality. The concave pygidium is sometimes blackish both in the Mexican and Panama forms.

30. *Lebia interrupta*.

Lebia interrupta, Chaudoir, Monogr. des Lébiides, p. 100¹.

Hab. MEXICO¹.

I have not seen this species, which M. de Chaudoir obtained from M. E. Deyrolle.

31. *Lebia anchora*. (Tab. X. fig. 20.)

Lebia anchora, Chevrolat, Col. Mex. ii. no. 132 (1835); Chaudoir, Monogr. des Lébiides, p. 102¹.

Lebia bonellii, Putzeys, Mém. Soc. R. de Liège, ii. p. 391 (1846).

Hab. MEXICO¹, Vera Cruz, Tuxtla, Yolos (*Sallé*), Mirador (*Höge*); GUATEMALA, Capetillo, San Gerónimo (*Champion*).

32. *Lebia incommoda*.

Lebia incommoda, Chaudoir, Monogr. des Lébiides, p. 103¹.

Hab. MEXICO, Campeche (*Pilate*¹).

33. *Lebia scalpta*. (Tab. X. fig. 21.)

L. subrugosa (Chaud.) similis, sed differt capite a collo usque ad epistoma subrecte multistriato. Oblonga, flavo-testacea, capite supra et infra elytris que signaturis nigris; labro, partibus oris antennisque rufo-testaceis; capite supra acute striato, striis fere omnibus rectis a collo usque ad epistoma; oculis magnis prominentibus; thorace sat transverso, marginibus late explanato-reflexis; elytris oblongis, profunde striatis, interstitiis convexis, fascia ante apicem triloba vel lacerata, variabili, vitta submarginale a fascia usque ad humerum gradatim attenuata, macula quadrata circumscutellari vitta que suturali inter maculam scutellarem et fasciam nigris; tarsorum 2 posticorum articulo 4^o profunde emarginato, 4 anteriorum bilobatis.

Long. 6½ millim.

Hab. MEXICO, Jalapa (*Höge*), Yucatan (*Sallé*).

Similar in the black markings of the elytra to *L. subrugosa*, Chaud., but differing in the uniform nearly straight sculpture of the head. The posterior black fascia is, in most examples, trilobed almost as regular as in *L. variegata* and *L. anchora*, but in others it is irregular and ragged on both its edges—a specimen, wrongly named *L. subrugosa*, in the Sallé collection reaching an extreme in this respect, and agreeing, therefore, with Chaudoir's figure of *L. subrugosa*.

34. *Lebia duillia*. (Tab. XI. fig. 1.)

L. striaticipiti (Chaud.) affinis. Oblongo-ovata, postice dilatata, flavo-testacea (capite thorace que rufioribus), elytris subcyaneo-nigris utrinque maculis duabus magnis marginibus que angustis flavo-testaceis, altera prope basin oblique quadrata a stria 1^a usque ad striam 7^m extensa, interdum usque ad marginem extensa, altera apicali transversa (sutura apice que suturali fuscis); capite supra longitudinaliter striato, spatio triangulari prope epistoma lævi; thorace brevi et lato, marginibus late explanatis, ante angulos leviter sinuatis, dorso subtiliter (præcipue longitudinaliter) strigoso; elytris profunde striatis, interstitiis convexis prope apicem deplanatis; tarsorum 4 anter. articulo 4^o bilobato, 2 poster. lobis brevioribus.

Long. 4½ millim.

Hab. MEXICO, Jalapa (*Höge*).

The striated and red-coloured head brings this species into the same subsection as *L. ægra*, *striaticeps*, &c., but in the elytral markings it very much resembles *L. chiri-quensis*, *nemoralis*, and allies; it wants, however, the long linear lobes of the fourth joint of the hindmost tarsi, which distinguish the latter subgroup. The colour of the elytral markings is deep black, sometimes with a bluish tinge.

35. *Lebia subrugosa*.

Lebia subrugosa, Chaudoir, Monogr. des Lébiides, p. 118, t. 1. fig. 49¹.

Hab. MEXICO¹, Capulalpam (*Sallé*), Jalapa (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

36. **Lebia rhodope.** (Tab. X. fig. 24.)

L. subrugosæ affinis, sed differt capite thoraceque rufis, illo lævi hoc subtiliter strigoso sed nitido. Oblonga, postice dilatata, flavo-testacea, capite thoraceque rufis; thorace antice modice rotundato, marginibus sat late explanato-reflexis; elytris profunde striatis, interstitiis valde convexis, prope apicem planioribus, signaturis sicut in *L. subrugosa* (Chaud. Monogr. t. i. fig. 49), viz. macula transversim oblonga circumscutellari, altera rhomboidea post medium (vitta suturali connexis), fascia obliqua dentata inter maculam rhomboideam et marginem vittaque submarginali a fascia usque ad basin, nigris.

Long. 6-6½ millim.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Capetillo (*Champion*).

37. **Lebia rufilia.** (Tab. X. fig. 25.)

L. rhodopi proxime affinis, forsan ejus varietas, sed differt capite supra plus minusve rugoso, elytris sine vitta marginali et fascia mediana angusta, arcuata submaculari.

Var. fascia apud interstitia 5^m-7^m interrupta.

Hab. MEXICO, Jalapa (*Höge*); GUATEMALA, Zapote (*Champion*), Capetillo *var.* (*Champion*).

Besides the entire absence of the submarginal black vitta, the fascia between the rhomboidal sutural spot and the margin is somewhat different in form and direction, being arcuated (with concavity towards the tip of the elytra), narrow, and undulated.

38. **Lebia neanthe.** (Tab. X. fig. 22.)

L. anchoræ similis, sed differt capite fere lævi elytrorumque fascia nigra basali usque ad humeros extensa etc. Breviter quadrato-ovata, flavo-testacea, capite (partibus oris epistomateque exceptis) nigro, elytris fascia basali (postice apud interstitia 4^m et 5^m profunde emarginata) altera posteriore (antice apud interstitia 4^m et 6^m et postice apud interstitia 4^m, 5^m et 7^m indentata), suturaque inter fascias, nigris; capite lato, oculis valde prominentibus, obsolete striato et punctulato; thorace transverso, lateribus explanatis valde reflexis, margine ab ante medium fere recto, angulis posticis productis margineque basali prope angulum rotundato-obliquato; elytris profunde subpunctulato-striatis, interstitiis valde (postice minus) convexis; tarsorum articulo 4^o bilobato.

Long. 5½ millim.

Hab. BRITISH HONDURAS, Belize (*Blancaneaux*).

39. **Lebia calliope.** (Tab. X. fig. 23.)

L. neanthe proxime affinis, sed differt statura angustior, oblonga; elytrorum fascia nigra posteriore sicut in *L. anchora* triloba, nec multi-indentata. Oblonga, flavo-testacea, capite (partibus oris epistomateque exceptis) nigro, elytris fascia basali (postice medio utrinque profunde emarginata) altera posteriore triloba, suturaque inter fascias, nigris; capite obsolete striato et punctulato; thorace quam in *L. neanthe* angustiore, præcipue lateribus multo angustius explanatis; elytris profunde subpunctulato-striatis, interstitiis modice convexis; tarsorum articulo 4^o bilobato.

Long. 5½ millim.

Hab. MEXICO, Mirador, Cerro de Plumas (*Höge*); GUATEMALA, San Gerónimo (*Champion*).

Var. (immatura?). Elytrorum signaturis pallide fuscis fasciaque posteriore utrinque interrupta.

Hab. MEXICO, Juquila (*Höge*).

40. **Lebia soror.** (Tab. XI. fig. 2.)

Lebia soror, Chaudoir, Monogr. des Lébiides, p. 122, t. 1. fig. 54¹.

Hab. MEXICO, Cordova (*Sallé*); NICARAGUA, Chontales (*Belt*); PANAMA, Las Mercedes, Caldera, Bugaba (*Champion*).—SOUTH AMERICA, Amazons¹.

41. **Lebia centromaculata.** (Tab. XI. fig. 3.)

Lebia centromaculata, Putzeys, Mém. Soc. R. d. Sci. de Liège, ii. p. 386; Chaudoir, Monogr. des Lébiides, p. 124, t. 2. fig. 59¹.

Hab. MEXICO, Juquila (*Sallé*, *Höge*); GUATEMALA (*Sallé*), Capetillo, San Gerónimo (*Champion*).

Var. *L. miradora*. Elytris sutura nigra a scutello usque ad maculam suturalem fasciaque mediana usque ad interstitium 9^m extensa, apud interstitia 6^m–9^m dilatata et retrorsum inflexa.

Hab. MEXICO, Mirador (*Höge*).

42. **Lebia arietis.** (Tab. XI. fig. 4.)

L. centromaculatae proxime affinis et similis; thorace ejusdem formæ, sed elytris fascia tenui valde angulata (apud suturam haud maculam efficiente) suturaque antice nigra usque ad scutellum.

Long. 5½ millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

The thorax is of the same form as in *L. centromaculata*, *i. e.* much rounded from the anterior angles, and thence slightly narrowed in nearly a straight line to the base; but the black mark of the elytra in all the very numerous examples differs constantly in not consisting of a rhomboidal spot on the suture with a slender angular branch on each side, but forming an angular line or fascia of equal width throughout, the pale ground-colour at the suture behind indenting nearly always the black mark. The elytra also seem more deeply striated, the striæ alveolated and darker than the interstices.

43. **Lebia chelostigma.** (Tab. XI. fig. 5.)

Fulvo-testacea, elytris macula communi pone medium utrinque ramum rectum antrorsum obliquum emittente, suturaque fere usque ad scutellum, nigris; capite antice, cum mandibulis et maxillis elongato, collo angusto, oculis valde prominentibus; antennis elongatis, gracilibus; thorace antice (a basi) curvatim angustato, marginibus (præcipue postice) explanato-reflexis, angulis posticis rectis, dorso subtiliter alutaceo; elytris elongato-ovatis sat convexis, profunde striatis, interstitiis convexis; tarsorum articulo 4^o bilobato.

Long. 6–8 millim.

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

In the markings of the elytra similar to *L. centromaculata*, but differing from that species much in the form of the thorax, the widest part of which is at the hind angles, and the sides not being rounded outward immediately behind the anterior angles. The prolongation of the anterior part of the head with the mandibles and maxillæ is visible chiefly in the larger examples and in the males.

44. **Lebia chlorotica.** (Tab. XI. fig. 6.)

Lebia chlorotica, Dej. Sp. Gén. Col. v. p. 384¹; Chaudoir, Monogr. d. Lébiides, p. 125².

Hab. MEXICO^{1,2}, Cordova (*Sallé*), Juquila (*Sallé, Höge*); GUATEMALA, Dueñas, Cerro Zunil, San Gerónimo (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia².

45. **Lebia latifascia.** (Tab. XI. fig. 7.)

Lebia latifascia, Chaudoir, Monogr. d. Lébiides, p. 127, t. 2. fig. 64¹.

Hab. MEXICO¹, Cordova (*Sallé*).

46. **Lebia yucatanana.**

Lebia yucatanana, Chaudoir, Monogr. d. Lébiides, p. 129, t. 2. f. 68¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

47. **Lebia nigriceps.** (Tab. XI. fig. 8.)

Lebia nigriceps, Chaudoir, Monogr. d. Lébiides, p. 132, t. 2. f. 74¹.

Hab. MEXICO, Cordova (*Sallé*), San Luis Potosi (*Dr. Palmer*).

48. **Lebia incohærens.**

Lebia incohærens, Chaudoir, Monogr. d. Lébiides, p. 134, t. 2. fig. 77¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

49. **Lebia scitula.**

Lebia scitula, Chaudoir, Monogr. d. Lébiides, p. 136¹.

Hab. MEXICO, Yucatan¹.

50. **Lebia xanthopleura.** (Tab. XI. fig. 9.)

Lebia xanthopleura, Chaudoir, Monogr. d. Lébiides, p. 140, t. 2. fig. 81¹.

Hab. PANAMA, Caldera, David (*Champion*).—SOUTH AMERICA, Ecuador, Amazons, Cayenne¹.

The colour of the elytra in this beautiful species varies from greenish black to blue and violet.

51. **Lebia bivitticollis.** (Tab. XI. fig. 10.)

L. annulipenni et affinibus similis; differt thorace vittis duabus nigro-fuscis; thorace sicut in § *annulipenni* trapezoideo, mox ab angulis anticis paullo rotundato deinde subrecte sed modice dilatato usque ad angulos posticos, margine laterali (præcipue postice) explanato-reflexo, angulis posticis subacutis; capite antice cum partibus oris perspicue elongatis; elytris profunde striatis, striis convexis. Flavo-testacea, elytris fere sicut in *L. annulipenni* (Chaud. Monogr. t. ii. fig. 84), sed macula circumscutellari magis quadrato vel apud

interstitium quartum dentato, interdum linea posteriore per marginem usque ad humerum continuata, annulo fusco-nigro efficiente.

Hab. GUATEMALA; PANAMA (*Champion*).

Forma minor 4-4½ millim.: GUATEMALA, Chacoj, Cubilguitz, Pantaleon; PANAMA, David, Caldera.

Forma major 5½-6 millim.: Volcan de Chiriqui, alt. 2500 to 4000 feet.

In hac forma thoracis vittis interdum obsoletis, thorace toto flavo.

The difference in size of the two local forms holds good throughout a large series of examples. The dark elytral markings vary in the same way in both; they form on the basal part of each elytron a ragged, moderately narrow dark ring, never thickening into a spot on the suture, and leaving a scutellar area of the pale ground-colour; the ring, however, is often incomplete by the absence of the marginal line.

52. **Lebia chiriquensis.** (Tab. XI. fig. 11.)

L. nemoralis (Chaud.) proxime affinis et simillima, differt tantum statura paullo minore elytrorumque annulo nigro magis compacto macula ovali magis regulari includente. Oblongo-ovata, postice paullo dilatata, sat convexa, flavo-testacea, elytris utrinque annulo subovali lato nigro a basi usque longe ultra medium extensa, postice apud suturam dilatata, margine postico deinde usque ad latera obliquo dentato; palpis apice valde attenuatis, ♂ labialibus incrassatis; thorace lato et brevi, antice rotundato deinde lateribus rectis; elytris profunde striatis, interstitiis convexis; tarsorum articulo quarto longe bilobato.

Long. 4-5 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Differs very little from the South-Brazilian *L. nemoralis*, of which I have only one example and Chaudoir's description and figure as material for comparison. All the numerous examples of *L. chiriquensis* differ from these in the more even or less lacerated margins of the black ring-marks of the elytra. These marks, however, are of similar breadth, and the hind part narrows from the suture to the margin, which it reaches obliquely a little behind the middle, but does not quite touch, the margin itself remaining yellow, like the scutellum, and almost always a small portion of the suture near the scutellum. The enclosed yellow spot on each elytron forms an oval with even outline.

53. **Lebia biannulata.** (Tab. XI. fig. 13.)

Lebia biannulata, Chaudoir, Monogr. d. Lébiides, p. 159, t. 2. fig. 101¹.

Hab. MEXICO¹, Cordova (*Sallé*).

Equally with the preceding related to *L. nemoralis*, but differing from both in the hinder part of the black ring-mark being much narrower and more undulated. In a specimen from Jalapa it is, however, rather wider than in typical examples.

54. **Lebia biforis.** (Tab. XI. fig. 12.)

L. chiriquensi affinis; minor, elytrorumque annulo nigro multo latiore, parte posteriore fasciam latam formante.

Parva, postice sat dilatata, flavo-testacea; elytris nigris, quarta parte posteriore, macula circulari anticondiscoïdali marginibusque angustis flavo-testaceis, cæteris ut in *L. chiriquensi*.

Long. $3\frac{1}{2}$ –4 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Notwithstanding its smaller size and the different facies, due chiefly to the much broader hind part of the black ring-mark, I think it extremely likely that this is only a variety of *L. chiriquensis*. Some of the larger examples (4 millim.) graduate into *L. chiriquensis*, the only difference being the greater and more uniform width of the black ring-mark in its hinder portion.

55. *Lebia tolteca*. (Tab. XI. fig. 14.)

L. chiriquensi affinissima, differt solum elytrorum annulo fusco vittaque submarginali tenuiore; macula ovata, flavo-testacea, inclusa, magis obliqua, versus humeros extensa. Palporum (præcipue labialium) articulo terminali ♂ basi incrassato, versus apicem subulato.

Long. $4\frac{1}{2}$ – $5\frac{1}{4}$ millim.

Hab. MEXICO, Jalapa (*Höge*).

Var. minor $3\frac{3}{4}$ –4 millim.: GUATEMALA, El Tumbador (*Champion*).

Might perhaps be more properly treated as a local form of *L. chiriquensis*; but it is smaller, and the browner ring-mark of the elytra, with the narrower marginal vitta, and the consequently less regularly oval included yellow spot, gives it a different facies. It is much more nearly related to *L. chiriquensis* than it is to *L. biannulata*, the hinder part of the ring-mark being moderately broad and only slightly dentated along its hind margin.

56. *Lebia maya*. (Tab. XI. fig. 15.)

L. toltece et *biannulate* affinis, sed differt elytrorum signaturis haud annuliformibus, vitta marginali deficiente, fusco-bifasciatis, fasciis apud suturam dilatatis et per vittam suturalem conjunctis, macula flava subovata interjecta extus ad marginem extensa.

Long. $4\frac{1}{2}$ –5 millim.

Hab. GUATEMALA, Zapote (*Champion*).

The elytral markings are almost exactly as in *L. longiloba* (Chaud. Monogr. t. ii. fig. 102), the chief difference being that the hinder fascia is more dentated on both its margins. The difference is probably of specific value, and *L. longiloba* is recorded only from Cartagena in Colombia; but the species is not satisfactorily distinct from *L. tolteca*, one example having a faint trace of the lateral vitta. The labial palpi of the male have their terminal joint thickened at the base and subulate at the apex, like the rest of the group to which it belongs.

57. *Lebia inconstans*. (Tab. XI. fig. 16.)

Parva, brevis, modice convexa, postice dilatata, flavo-testacea, elytris rufo-fuscis vel nigro-fuscis quinta parte apicali maculaque utrinque anticondiscoïdali marginibusque flavo-testaceis, profunde striatis, interstitiis

convexis apice sinuato-truncatis; tarsorum omnium articulo quarto bilobato, lobis longis et angustis; capite lato post oculos rotundato, angustato, supra lævi; thorace subtiliter striguloso, late transverso, antice sat dilatato-rotundato, marginibus late explanato-reflexis, angulis posticis subrectis, margine basali juxta angulum oblique rotundato.

Long. $4\frac{1}{2}$ millim.

Var. capite et thorace plus minusve fuscis, maculaque elytrorum antico-discali vel rotundata vel irregulari, lobum præcipue supra interstitium quartum (postice) emittente, fere sicut in *L. fuscicipiti* (Chaud. Monogr. t. i. fig. 69).

Var. elytris, apice flavo excepto, nigris.

Hab. GUATEMALA (*Salvin*), Capetillo, San Gerónimo, Cerro Zunil, Calderas (*Champion*).

The position of this species in Chaudoir's classification is doubtful. It bears much resemblance to some of his *Aphelogeniæ*, and the emargination of the mentum is without tooth, as in that genus; but there is a slight undulation in place of the tooth, and, besides, this character is evidently of no generic value in the *Lebia* group. The variation in the colour of the head and thorax and in the form of the elytral markings in this species demonstrate the little value of Chaudoir's groups founded on these characters.

58. *Lebia corcula*. (Tab. XI. fig. 17.)

Lebia corcula, Bates, Proc. Zool. Soc. 1878, p. 607¹.

"*L. nigricipiti* (Chaud.) similis, at capite flavo, elytris ovatis differt. Parva, ovatula, testaceo-flava; elytris fasciis duabus nigris, prima basali (latera haud attingente) postice medio angulatim emarginata, secunda pone medium (marginem lateralem haud attingente) antice et postice medio elytro leviter sinuata, interstitio suturali inter fascias autem nigro; thorace valde transverso, apud angulos posticos valde explanato; elytris profunde punctulato-striatis, interstitiis culminatis.

"Long. vix 2 lin."

Hab. NICARAGUA, Chontales (*Janson*¹).

The elytral markings are almost exactly as in *L. nigriceps* (Chaud. Monogr. t. ii. fig. 74); but the species belongs to a different subgroup, resembling in form *L. centro-maculata* and allies, but peculiar in the hind tarsi being very slender, and the claws and lobes of the fourth joint small.

59. *Lebia cordelia*. (Tab. XI. fig. 18.)

L. corculæ affinis, tarsi posticis angustissimis, unguibus parvis similibus; sed differt quoad colores. Flavotestacea, capite thoraceque rufis, lævibus, elytris macula late triangulari circumscutellari, humeris, sutura media fasciaque angusta post medium (apud suturam rhomboidea et ad interstitia 4^m-5^m fere interrupta) nigris; thorace minus lato, antice parum dilatato-rotundato, postice haud angustato, marginibus sat explanatis, flavis; elytris profunde striatis, interstitiis usque ad apicem convexis.

Long. $4\frac{1}{2}$ millim.

Hab. MEXICO, Jalapa (*Höge*).

I received this species many years ago from Paris under the name *L. 4-notata*, Dej., but it has not been described under that name. *Lebia 4-notata*, Chevr., is a species of *Lia*.

60. **Lebia zeta.** (Tab. XI. fig. 19.)

Subanguste oblonga, postice paullo dilatata, flavo-testacea, elytris post medium fascia lata valde angulata nigro-fusca; capite thoraceque lævibus, hoc modice lato antice sat rotundato, postice paullulum angustato, marginibus explanatis, angulis posticis parum elevatis subacutis; elytris apice sinuato-truncatis, sat profunde punctulato-striatis, interstitiis modice convexis; tarsorum omnium articulo quarto bilobato; palpis labialibus ♂ fusiformibus nec subulatis; menti sinu acute breviter dentato.

Long. $5\frac{1}{2}$ millim.

Hab. MEXICO, Misantla (*Höge*).

Peculiar in its markings, and of uncertain position in Chaudoir's classification. Its affinities seem to lie chiefly in the direction of *L. centromaculata*. The brown fascia of the elytra is rather broad and not oblique; it emits a short line along the suture anteriorly (the suture behind being yellow); its broadest part is on interstices two to four and again on five and six, when it bends forward, and it is reduced to small spots on interstices seven and eight.

61. **Lebia discopicta.** (Tab. XI. fig. 20.)

Aphelogenia discopicta, Chaudoir, Monogr. d. Lébiides, p. 180¹.

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Amazons¹.

A single example from Bugaba agrees with the Amazons form in every thing except the blacker colour and slightly greater development of the markings of the elytra, the broad belt extending to the eighth stria, though otherwise similar in shape, and the shoulders having each a black spot in addition to that on the third and fourth interstice towards the base.

The species was separated from *Lebia* by Chaudoir on the ground of wanting the tooth in the emargination of the mentum; but the assemblage of species which he formed on this character as his genus *Aphelogenia* is so heterogeneous and artificial that it is impossible to adopt it: *L. discopicta*, at any rate, agrees too closely with the numerous group of *Lebia* distinguished by their deeply striated elytra to be separated from them.

62. **Lebia chalybe.**

E majoribus. Elongato-quadrata, vix convexa, nigro-picea, elytris saturate cæruleis, partibus oris rufo-piceis; capite obsoletissime, thorace distinctius flexuoso-ruguloso, hoc relative parvo, modice transverso, antice mox ab apice rotundato, postice haud angustato lateribus explanato-reflexis, angulis posticis rectis; elytris dorso subplanatis, apice sinuato-truncatis, profunde striatis, interstitiis convexis versus apicem planioribus; menti sinu late dentato.

Long. 8 millim.

Hab. MEXICO, Tehuacan (*Höge*).

Does not fit into any of the numerous sections into which Chaudoir divided the genus; it approaches in some respects nearest the North-American *L. analis* (Dej.), but differs in the head not being longitudinally striated.

63. **Lebia sinanja.** (Tab. XI. fig. 21.)

L. chalybi affinis et forsan ejus varietas localis; differt colore castaneo-fusco, partibus oris tarsisque testaceo-fulvis; capite læviore; thorace antice ab apice paullo minus dilatato, dorso transversim ruguloso.
Long. 8 millim.

Hab. GUATEMALA, Sinanja (*Champion*).

The hind tarsi have their fourth joint bilobed, the lobes moderately long.

64. **Lebia mirabilis.** (Tab. XI. fig. 22.)

Species distinctissima; ovata, elytris convexis ante apicem declivibus, apice ipse planato, subreflexo; pallide testacea, capite supra postice, collo, thoracis disco elytrisque plaga irregulari circumscutellari guttulisque lituris vicinis, nigro-fuscis; capite obsolete sparsim strigoso, vertice sat convexo colloque constricto et angusto; palpis gracilibus acuminatis; thorace subtrapezoidali lateribus antice arcuatis, marginibus late (postice latissime) explanatis, dorso transversim rugoso; elytris apice valde sinuato-truncatis, profunde striatis, fere sulcatis, interstitiis convexis; femoribus 4 posticis apice intus fusco maculatis; tarsorum omnium articulo quarto longe bilobato; menti sinu edentato.

Long. 6 millim.

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

The blackish markings of the elytra consist in a patch round the scutellum (the scutellum itself being yellow), a broken short discoidal fascia on each elytron close behind, an oblique spot thence towards the shoulder, a humeral spot, a small spot over the second ordinary puncture of the third interstice, the suture near the apex, and spots on the marginal row of ocellate punctures; the pygidium has also a black streak on each side; there is sometimes also a dusky spot on the basal joint of the antennæ and on the sides of the prosternum. The two punctures of the third elytral interstice are unusually large.

The markings nearly resemble those of *Lebia cursor* (Chaudoir) from Cayenne; but the description of the form of the elytra in that species does not at all fit *L. mirabilis*, and I cannot discover, even under a high power of the microscope, any tooth in the emargination of the mentum, which, according to Chaudoir's classification, *L. cursor* must possess.

65. **Lebia melantho.** (Tab. XI. fig. 23.)

Magna, oblonga, parum convexa, tota nigra nitida, elytris prope apicem deplanatis, apice ipso arcuato-truncatis, angulo exteriori dentiformi, suturali subdentato; capite sparse longitudinaliter et transversim ruguloso, collo nec constricto nec depresso; palpis normalibus apice obtusis; thorace fere semiovato, antice parum rotundato, postice paullo latiore, marginibus sat late explanato-reflexis, angulis posticis apice rotundatis, dorso transversim ruguloso, elytris profunde striatis, interstitiis valde elevatis; tarsorum omnium articulo quarto bilobato, lobis modice angustis; menti sinu dente late obtuso armato.

Long. $12\frac{1}{2}$ millim.

Hab. MEXICO, Jalapa (*Höge*).—SOUTH AMERICA, Ega, Amazons.

I know only of two examples of this remarkable species. The Amazons specimen does not differ from the one from Jalapa, except in the sutural apex of the elytra being

more produced and acute, and the thorax being a trifle broader anteriorly, and consequently less semioval. It may be distinguished as *melantho* var. *macra*. The species agrees with *Lebia* in all its essential characters, and cannot belong to Chaudoir's *Pæcilostola*, the type of which has dentiform apical angles to the elytra, as it wants the remarkable convexity of body and the short and broad lobes of the tarsal joint, which alone justify the separation of *Pæcilostola* from *Lebia* *.

66. ***Lebia rugatifrons***. (Tab. XI. fig. 24.)

Dianchomena rugatifrons, Chaudoir, Monogr. d. Lébiides, p. 194, t. 3. fig. 135¹.

Hab. MEXICO, Cuernavaca (*Sallé*), Yucatan (*Pilate*¹).

The genus *Dianchomena*, Chaud., was separated from *Lebia* on account of its edentate mentum (like *Aphelogenia*) and convex head. The species thus brought together are less heterogeneous than in *Aphelogenia*, but still sufficiently so to demonstrate the artificiality of the genus. This and the following five species, however, form a natural group; they are distinct from the first group of Chaudoir, which, in the event of the genus being adopted, would alone have to bear the generic name.

67. ***Lebia vicina***. (Tab. XI. fig. 25.)

Dianchomena vicina, Chaudoir, Monogr. d. Lébiides, p. 196, t. 3. fig. 138¹.

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia¹.

Approaches *L. anchora* in colour and markings.

68. ***Lebia humeroguttata***.

Dianchomena humeroguttata, Chaudoir, Monogr. d. Lébiides, p. 198, t. 3. fig. 140¹.

Hab. MEXICO¹, Cordova (*Sallé*).

Scarcely differs from *L. vicina*, except in the less convex elytral interstices.

69. ***Lebia anchorifera***.

Dianchomena anchorifera, Chaudoir, Monogr. d. Lébiides, p. 198, t. 3. fig. 141¹.

Hab. MEXICO¹, Cordova (*Sallé*), Almolonga, Jalapa (*Höge*).

* Another species of precisely similar form and sculpture, though strikingly different in colours and relatively shorter in form, might afford good ground for considering that we have here to deal with a genus distinct from *Lebia*. It is also from Ega, on the Amazons. *Lebia ditissima*: læte viridi-ænea, elytris splendide aurato-cupreis, tibiis tarsisque piceo-nigris, antennis (brevibus), basi viridi excepta, rufo-piceis; 10 millim. The form of the tooth of the mentum and of the lobes of the fourth tarsal joint is the same; the thorax and apex of the elytra nearly as in *L. melantho* var. *macra*. The structural characters seem to me insufficient to separate these insects generically from the *Lebiæ* of the group *sulcipennis*, *xanthopleura*, and allies.

70. **Lebia intermedia.**

Dianchomena intermedia, Chaudoir, Monogr. d. Lébiides, p. 199, t. 3. fig. 142¹.

Hab. MEXICO, Cordova (*Sallé*), Yucatan (*Pilate*¹).

71. **Lebia calliparis.** (Tab. XII. fig. 1.)

L. intermedice affinis, differt elytris bifasciatis. Parva, flavo-testacea, capite, palpis, antennis (articulis 1^o-3^m exceptis), fasciis elytrorum duabus, prima lata basali, postice fere recta, secunda lata subtrilobata suturaque angusta, nigris; capite postice valde convexo collo constricto, fronte media lævi, lateribus striatis; thorace rufo-testaceo, transverso, antice rotundato, lateribus explanato-reflexis; elytris obsolete striatis, suturali solum acute impressis, interstitiis planis; tarsorum omnium articulo quarto anguste bilobato.

Long. 4½ millim.

Hab. GUATEMALA, Capetillo (*Champion*).

72. **Lebia abdominalis.**

Lebia abdominalis, Chaudoir, Bull. Mosc. 1843, p. 704; Leconte, Ann. Lyceum N. York, iv. p. 195 (1848)¹.

Dianchomena abdominalis, Chaud. Monogr. d. Lébiides, p. 191².

Hab. NORTH AMERICA, Alabama¹, Louisiana².—MEXICO², Guanajuato (*Dugès, coll. Sallé*); BRITISH HONDURAS (*Blancaneaux*); GUATEMALA, Champerico (*Champion*); NICARAGUA, Chontales (*Belt*).

This with two South-American species are the typical forms of Chaudoir's genus *Dianchomena*; but *L. abdominalis* is obviously nearly related to the *L. quadricolor* section of true *Lebiæ*.

73. **Lebia vittata.**

Carabus vittatus, Fabr. Syst. El. i. p. 202.

Lebia vittata, Dej. Sp. Gén. Col. i. p. 267¹.

Lebia flavovittata, Chevrolat, Col. Mex. ii. no. 161².

Aphelogenia vittata, Chaudoir, Monogr. d. Lébiides, p. 184, t. 3. fig. 127³.

Hab. NORTH AMERICA, United States, generally distributed^{1 3}.—MEXICO^{2 3} (*Sallé*).

This and the following two species, forming part of Chaudoir's Section II. of *Aphelogenia*, form a tolerably natural group very distinct from his Section I.

74. **Lebia histrionica.** (Tab. XII. fig. 2; fig. 3, var. *c.*)

L. vittatæ quoad formam similis, sed striis impressis interstitiisque paullo convexis. Flavo-testacea, capite thoraceque rufis, palpis, antennis (basi exceptis), femoribus (basi excepta), genibus, tibiis apice et tarsis, nigris; elytris signaturis nigris variabilibus; capite punctulato, fronte utrinque strigosa; thorace quam in *L. vittata* paullo latius explanato-marginato, disco transversim strigoso; tarsorum posticorum articulo quarto breviter bilobato.

Long. 6 millim.

Hab. MEXICO (*Sallé*); GUATEMALA (*Champion*).

Var. *a* (*L. scutellata*, Chevr. MS.). Elytris macula quadrata (postice haud angulata) circumscutellari, fasciaque postmediana apud suturam latissima versus latera angustata, nigris.

Hab. MEXICO, Playa Vicente (*Sallé*).

Var. *b*. Macula circumscutellari propter suturam flavescentem fere divisa, fascia posteriore utrinque in maculas duas divisa, interstitiis tertio quartoque flavis.

Hab. MEXICO, Cordova (*Sallé*).

Var. *c* (*L. nigrosignata*, Dugès). A var. *b* differt solum parte mediana fasciæ posterioris usque ad maculam circumscutellarem continuata.

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

Var. *d*. Macula circumscutellari deficiente, fascia posteriore utrinque divisa sed antice prolongata, parte suturali sicut in var. *c* vittiformi, parte discoidali in maculam antice acuminatam extensa.

Hab. GUATEMALA, Tocooy (*Champion*).

75. *Lebia bivittata*.

Carabus bivittatus, Fabr. Ent. Syst. Suppl. p. 59.

Lebia quadrivittata, Dej. Sp. Gén., Col. i. p. 268; Leconte, Ann. Lyc. N. Y. iv. p. 195¹.

Aphelogenia bivittata, Chaudoir, Monogr. d. Lébiides, p. 189, t. 3. fig. 132.

Hab. NORTH AMERICA, Alabama¹, Texas.—MEXICO, Guanajuato (*Dugès, coll. Sallé*), near the capital (*Flohr*).

76. *Lebia quadriplagiata*.

Aphelogenia quadriplagiata, Chaudoir, Monogr. d. Lébiides, p. 172, t. 3. fig. 113¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

77. *Lebia amabilis*.

Aphelogenia amabilis, Chaudoir, Monogr. d. Lébiides, p. 174, t. 3. fig. 117¹.

Hab. GUATEMALA, Tamahu, Cahabon (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia¹.

78. *Lebia hilaris*. (Tab. XII. fig. 6.)

Aphelogenia hilaris, Chaudoir, Monogr. d. Lébiides, p. 177, t. 3. fig. 120¹.

Hab. MEXICO, Cordova¹, Toxpam (*Sallé*).

79. *Lebia extrema*.

L. hilari et *amabili* affinis; differt thorace magis quadrato, postice haud dilatato, lateribus rectis, angulis posticis minus productis. Breviter ovata, convexa (minus quam *L. amabilis*), flavo-testacea; fasciis duabus elytrorum, prima basali (postice paullulum flexuosa), secunda mediana (antice paullo flexuosa), per vittam suturalem connexis, nigris; capite lævi, vertice palpisque infuscatis; thorace transversim quadrato, lateribus fere rectis, lobo basali maxime elongato; elytris modice convexis, apice leviter sinuatim truncatis, striis punctulatis vix impressis, interstitiis planis; pectore ventrisque basi fuscis.

Long. 3 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, December 1883.

80. *Lebia granaria*.

Lebia granaria, Putzeys, Mém. Ac. Sci. de Liège, ii. 392¹.

Aphelogenia granaria, Chaudoir, Monogr. de Lébiides, p. 174, t. 3. fig. 116.

Hab. PANAMA, Volcan de Chiriqui (*Champion*); SOUTH AMERICA, Venezuela¹.

An example from Panama resembles closely a specimen from Caraccas, sent me by M. René Oberthür.

The four preceding species form, with others from various parts of Tropical America, a natural group, one of the chief characteristics of which is the convex elytra.

81. *Lebia heraldica*.

Oblonga, flavo-testacea, elytris nigris, vitta utrinque flava a basi (imprimis per interstitium quintum, deinde interstit. 4^m et 3^m) usque ad fasciam subapicalem flavam extensa, marginibus angustis flavis, antennis articulis 5^o-11^m (et 4^o apice) fuscis; capite fere lævi; thorace late transverso, antice rotundato-dilatato, postice sat angustato, lateribus late explanato-reflexis, lobo basali subelongato quadrato, dorso lævi; elytris acute striatis, interstitiis paullo convexis apice planioribus; tarsorum omnium articulo quarto longe bilobato.

Long. 7 millim.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

One example only, slightly immature.

Does not fit well in any of the subsections of Chaudoir's Monograph; but it is doubtless allied to the species of the *L. variegata* group.

82. *Lebia coptoderina*. (Tab. XII. fig. 4.)

Coptodera tripartita (Chaud.) subsimilis. Oblonga, parum convexa, flavo-testacea; elytris nigro-æneis fasciis duabus (prima valde dentata) flavis; capite lævi; thorace transverso, antice sat late rotundato, postice angustato, lateribus subæqualiter explanato-reflexis, dorso lævi; elytris postice paullo ampliatis, apice sinuatis, dorso profunde striatis, interstitiis convexis, fascia flava prima paullo ante medium, apud interstitium quartum postice, apud interstitium quintum antice, dilatata, fascia secunda juxta apicem antice undulata, postice ab apice margine viridi prope suturam separata; tarsorum posticorum articulo quarto breviter bilobato, lobis acuminatis; palpis tenuibus.

Long. 6 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

One example only. The position of the species in Chaudoir's classification is uncertain.

83. *Lebia mesostigma*. (Tab. XII. fig. 5.)

Convexa, rufo-testacea, elytris macula parva suturali paullo post medium alteraque minore utrinque paullo posteriore versus marginem, nigris; capite sparsim subtiliter punctulato, prope oculos strigoso, collo sat lato et convexo usque ad oculos recto; palpis apice obtusis; thorace subrotundato basi perparum lobato, lateribus fere regulariter arcuatis, antice magis quam postice angustato, margine explanato-reflexo, tota superficie strigoso-coriacea; elytris vix truncatis fere obtuse rotundatis, profunde striatis, interstitiis valde convexis; tarsorum posticorum articulo quarto bilobato, lobis latis.

Long. 8 millim.

Hab. MEXICO, Tepanistlahuaca (*Sallé*).

One example only.

The very obtusely rounded angle of the elytral truncature, the arcuated sides and short basal lobe of the thorax, and the broad lobes of the fourth tarsal joint, distinguish this species from all the other *Lebiæ* above recorded as belonging to the Central-American fauna. It may possibly belong to the genus *Pæcilostola*, Chaud.; but that genus is evidently an artificial assemblage, and it seems preferable to leave the species in *Lebia* until the whole of this difficult group is again thoroughly revised.

84. **Lebia** —.

Hab. COSTA RICA (*Rogers*).

One specimen, in bad condition and discoloured; but evidently a distinct species from any of the preceding.

85. **Lebia** —.

Hab. GUATEMALA, San Gerónimo (*Champion*).

A species different from any here recorded, and allied to *L. rhodopæ*, but with a relatively small quadrangular and smooth thorax. It is apparently immature, and I do not venture to name and describe it.

LIA.

Lia, Eschscholtz, Zool. Atlas, ii. p. 7 (1829); Chaudoir, Monogr. d. Lébiides, p. 211 (1870).

Chelonodema, Castelnau, Etud. Entom. i. p. 49 (1835).

Although founded on structural characters of apparently less importance than those which led Chaudoir to separate *Aphelogenia*, *Dianchomena*, and *Pæcilostola* from *Lebia*, this genus recommends itself for adoption on account of its homogeneity—the species composing it being evidently closely allied, and distinguishable from the *Lebiæ*, forming, in short, a natural assemblage. Eighteen species have been described, all inhabiting Tropical America.

1. **Lia championi**.

L. 12-punctatæ similis, sed angustior, elytris convexioribus etc. Oblongo-ovata, fulvo-testacea, antennis articulis 5^o–11^m et 4^o (basi excepta) nigris; thorace sicut in *L. 12-punctata* fere semicirculari; elytris (basi excepta) angustissime nigro-marginatis, apice minus profunde emarginatis, dorso subtiliter striato-punctato, interstitiis punctulatis, nitidis, utrinque maculis subæqualibus nigris 5, viz. ⋅⋅.

Long. 10 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

Similar to *L. 12-punctata* in the black spots of the elytra, which differ, however, in being nearly equidistant, the hindmost pair especially being at the same distance from the apex as from the anterior pair. The insect is moreover smaller, narrower, and more convex, the elytra being similar in shape to those of *L. elegans*. The thorax has concolorous margins.

2. **Lia melanocrepis.** (Tab. XII. fig. 10.)

L. championi simillima; differt thorace ante medium sat late dilatato, nigro-marginato, tarsis nigris, antennis articulo 4° omnino nigro.

Long. 10 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

One example only.

3. **Lia quadrinotata.** (Tab. XII. fig. 7.)

Lebia quadrinotata, Chevrolat, Mag. Zool. 1835, pl. 136¹.

Lia quadrinotata, Chaudoir, Monogr. d. Lébiides, p. 221, t. 3. ff. 158, 159².

Hab. MEXICO^{1 2}, Cordova, Vera Cruz (*Sallé*), Misantla (*Höge*); NICARAGUA, Chontales (*Belt*).

4. **Lia ocelligera.** (Tab. XII. fig. 8.)

L. quadrinotatae affinis et similis; differt elytris subtilissime punctatis nitidis, palpis pedibusque omnino rufis.

Latius ovata, minus oblonga et magis convexa, rufo-testacea; antennis nigris, articulis 1°-3^m rufis; thorace fere semicirculari; elytris subtilissime striato-punctatis, interstitiis nitidis vix perspicue punctulatis, utrinque maculis rotundatis nigris duabus, flavo-marginatis.

Long. 10-12 millim.

Hab. MEXICO, Orizaba (*Sallé*), Misantla (*Höge*); BRITISH HONDURAS, Belize (*Blancaneaux*); GUATEMALA, San Juan, Senahu (*Champion*).

The black spots are similar in form and position to those of *L. 4-notata*, typical form according to Chevrolat's figure, but they differ in being set each in a buff-yellow ring.

5. **Lia zunilensis.**

L. ocelligeræ proxime affinis, forsan ejus varietas localis; differt thorace minus semicirculari, antice ante collum latius rotundato, antennisque articulis 1° 2^oque vel 1° solum rufis; elytrorum maculis nigris multo minoribus vix perspicue flavo-marginatis.

Long. 11½ millim.

Hab. GUATEMALA, Cerro Zunil (*Champion*).

6. **Lia quadriannulata.** (Tab. XII. fig. 9.)

Lia quadriannulata, Bates, Proc. Zool. Soc. 1878, p. 607¹.

"In hoc genere convexa, polita, subcastaneo-rufa, subtus et pedibus testaceo-rufis; antennis articulis 4°-11^m piceis; thorace angustiore, antice gradatim angustato; elytris utrinque annulis duobus flavis, primo mediano-laterali, secundo versus apicem, macula autem flava subhumerali.

"Long. 5 lin."

Hab. NICARAGUA, Chontales (*Belt*¹); PANAMA, Bugaba (*Champion*).

In Chontales examples the antennal joints fourth to eleventh are blackish brown; in those from Bugaba they are only slightly darker than the three basal joints. The elytra have, besides the yellow rings, a lunule of the same colour near the shoulder in Bugaba examples, and a triangular spot in the Chontales typical specimens. The punctuation of the elytra is extremely fine, as in the majority of the species of the genus.

7. *Lia decolor*.

L. testaceæ (Dej.) similis, sed differt elytris longioribus interstitiisque impunctatis. Oblongo-ovata, pallide fulvo-ochracea; palpis (apicibus rufis exceptis), antennis (articulis 1^o-3^m rufis fusco maculatis exceptis), femoribus apice, tibiis et tarsis nigris; thorace fere sicut in *L. testacea* lateribus paullo rotundatis; elytris apice et sutura prope apicem nigro-marginatis, striato-punctatis, interstitiis omnino impunctatis.

Long. 10½-11½ millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

8. *Lia sellata*.

Lebia sellata, Dejean, Sp. Gén. Col. i. p. 259¹.

Lia sellata, Chaudoir, Monogr. d. Lébiides, Addenda, t. 3. f. 161.

Hab. NICARAGUA, Chontales (*Belt*), Javali (*Seemann*); PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Cayenne¹, Amazons.

Subfam. AGRINÆ.

AGRA.

Agra, Fabricius, Syst. El. i. p. 224; Chaudoir, Ann. Soc. Ent. Fr. 1861, p. 111.

One hundred and sixty species of this remarkable genus, in which the arboreal type of the family Carabidæ reaches its highest development, have been described, excluding the genus *Agridia*, of which six or seven species are known. Their head quarters are the great forests near the equator in South America, the number of species diminishing on approaching the tropical limits north and south. None have been found in temperate North America, or far south of the tropic in South America; and no member of the subfamily is known out of the American continent.

1. *Agra eurypelma*. (Tab. XII. fig. 11.)

A. latipedi affinis, et *A. palmatæ* ejusdem sectionis proxime affinis. *A. latipedi* magis elongata, nigra, supra leviter olivaceo-ænea tincta, tibiis (apice excepto) antennisque (articulis 1^o 3^oque, et 4^o-7^m apice, nigris, exceptis) obscure rufis; capite (♂) post oculos sat elongato, gradatim angustato; thorace sicut in *A. rufipedi*, sat lato, sparsim grosse punctato; elytris postice vix dilatatis, apice oblique truncatis, sutura dehiscenti, angulo exteriori acute dentato, dorso subgrosse striato-punctato, striis perparum impressis, punctis hic illic confluentibus; ventris segmentis penultimo et ultimo medio aciculato (hoc longitudinaliter, illo confuse), antepenultimo sparsim punctato; tarsis (præcipue articulo 1^o) latis, articulo unguiculari dilatato, unguiculis brevibus latissimis; tibiis compressis sed non gradatim dilatatis, intermediis intus ad apicem subito dilatatis.

Long. 22 millim. ♂.

Hab. MEXICO, Misantla (*Höge*).

One example only.

Agrees so nearly with Steinheil's description of his *A. palmata* from Colombia, that I should have concluded it to be the same species, were it not for the difference in the

colour of the tibiæ and antennæ. It is nearly allied also to *A. dominula* (Bates) from Peru, differing in the elytral striæ being scarcely impressed, and in colour.

2. *Agra insidiosa*.

A. eurypelmæ affinis; differt solum statura graciliori, antennis palpisque rufo-piceis, pedibus rufis. Ventris (♂) segmentis ultimo et penultimo medio longitudinaliter aciculatis, segmento antepenultimo medio crebre punctulato.

Long. 20 millim. ♂.

Hab. BRITISH HONDURAS (*Blancaneaux*).

One example only.

Agrees with *A. eurypelma* in every respect except its narrower form, red legs (including coxæ), dull red antennæ and palpi, and the different sculpture of the ventral segments of the male. The colour is rather more metallic.

3. *Agra castaneipes*. (Tab. XII. fig. 12.)

A. gemmata (Klug) valde affinis, quoad formam simillima, sed differt colore æneo (subtus subviridi-æneo) elytrorumque foveis fundo cyaneis; partibus oris, antennis pedibusque castaneo-rufis. Gracilis, ænea, polita; capite postice elongato apud collum solum angustato; thorace angusto, lineatim foveolato; elytris lineatim foveolatis, apice oblique recte truncatis, angulo suturali acuto (haud dehiscenti), exteriori dentato. ♂ ventris segmentis 3^o-5^m medio plagis duabus dense pilifero-punctatis, tibiisque quatuor posterioribus intus versus apicem pilosis, pectore nudo.

Long. 14-17 millim. ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

The elytral foveoles are more uniform in size than in allied species, and all more or less round—with the exception of the usual impressed sutural stria, in which the ordinary small punctures are seen; the interstices are unequally spaced and nearly plane.

4. *Agra macracantha*.

Ab *A. castaneipedi* (♀) differt elytris apice suturali longe spinoso, foveolis plerumque minoribus, seriebus 2^a (a sutura), 6^a et 7^a versus apicem in striis impressis, interstitiis convexis.

Long. 17 millim. ♀.

Hab. PANAMA, Bugaba (*Champion*).

Possibly only a variety of *A. castaneipes*. In that species the sutural apex varies, being in some examples rectangular and in others slightly produced and acute. In *A. macracantha* it is lengthened into an acute spine, longer than that of the lateral angle of the truncature.

5. *Agra æneola*. (Tab. XII. fig. 13.)

A. mœrenti affinis et quoad formam similis. Gracilis, piceo-fusca, supra ænea vel cuprascens; antennis, partibus oris, pedibus piceo-rufis; capite sicut in *A. mœrenti* postice elongato, oblongo, lævi; thorace medio vix dilatato, antice gradatim angustato; elytris angustis, post medium paullo ampliatis, apice subrecte truncatis, sutura paullulum dehiscenti, angulo suturali nullomodo producto, exteriori breviter dentato, dorso lineatim foveolatis, foveolis subrotundatis, sat parvis, raro confluentibus.

♂ ventris segmentis tribus intermediis utrinque medio plagis parvis duabus pilifero-punctatis; tibiis quatuor posterioribus versus apicem intus pilosis.

Long. 12–14 millim. ♂ ♀.

Hab. BRITISH HONDURAS, river Sarstoon (*Blancaneaux*); GUATEMALA, Panima (*Champion*).

6. *Agra soccata*.

A. moerenti affinis. Gracilis, obscure aenea, thorace viridi-aëneo; corpore subtus chalybeo-nigro, femoribus tibiisque castaneo-rufis, his apice, trochanteribus, geniculis tarsisque nigris; capite sicut in *A. moerenti* etc. elongato, lævi; thorace gracili, medio perparum dilatato; elytris apice fere recte truncatis, sutura paullo dehiscenti, angulo suturali subrecto, exteriori breviter dentato, dorso lineatim foveolato, foveolis viridibus, plerumque parvis, in striis paullo impressis, hic illic confluentibus; antennis (♀) articulo 8° abbreviato, 9°–11^m quam 7^s et præcedentes parum brevioribus.

Long. 14 millim. ♀.

Hab. PANAMA, Caldera (*Champion*).

Closely allied to *A. castaneipes*, but, besides the colour of the legs, differs in the much smaller and more numerous elytral foveolæ; in the size and number of the foveoles it comes between *A. castaneipes* and *A. nigripes*.

7. *Agra nigripes*.

Agra nigripes, Chaudoir, Bull. Mosc. ii. p. 98¹.

Hab. MEXICO¹, Vera Cruz (*Sallé*).

8. *Agra oblongo-punctata*. (Tab. XII. fig. 14.)

Agra oblongo-punctata, Chevrolat, Col. Mex. ii. no. 183¹.

Hab. MEXICO¹, Playa Vicente (*Sallé*), Cordova (*Sallé, Höge*), Misantla (*Höge*); GUATEMALA, Capetillo, San Juan, Sinanja, Senahu (*Champion*).

Chaudoir simply recorded this species in his revision of the genus, and had one female example only, received from M. Sallé. The Sallé collection contains two females; and the description of Chevrolat was apparently made from a single example of the same sex. The species at present is therefore only very imperfectly known, and Chevrolat's description and specific name do not help in its identification. The sculpture of the elytra, in fact, does not consist of oblong punctures, but is of the same nature as that described by Chaudoir as characterizing his *A. resplendens*, viz. rows of punctures not impressed in striæ, and varied by a series of larger punctures in the second and fourth striæ. These large punctures are the usual large setiferous punctures of the elytra of most genera of Carabidæ; but they are here situated each in a somewhat oblong fovea made by their confluence with one of the ordinary striæ-punctures, and are variable in number, and are sometimes inconspicuous in the fourth stria.

The secondary sexual characters are the same as in the species of the *A. infuscata* group, viz.:—♂. A tuft of hairs on each side of the mesial line in the three middle ventral segments, and the inside of the four posterior tibiæ towards the apex densely

hairy, the sterna remaining naked; the prolongation of the head behind the eyes slightly narrowed towards the neck. ♀. Eighth antennal joint much abbreviated; head oblong behind the eyes.

The species varies greatly in size, 13–21 millim.; and to a less extent in colour and sculpture. Mexican specimens have a greenish brassy tinge; Guatemala specimens tend to purplish coppery. The rows of punctures extend generally to the apex; but in some examples they become smaller, or disappear altogether, near the apex.

9. **Agra resplendens.** (Tab. XII. fig. 15.)

Agra resplendens, Chaudoir, Ann. Soc. Ent. Fr. 1866, p. 98, note.

Hab. GUATEMALA, Dueñas, Capetillo (*Champion*).

Described by Chaudoir from a female example, of unknown locality, in Count Mniszech's collection. It was taken in some abundance by Mr. Champion. The secondary sexual characters are the same as in *A. oblongo-punctata*, above described; and the two species are evidently very closely allied.

10. **Agra regularis.** (Tab. XII. fig. 16.)

A. gracili (Lucas) proxime affinis; differt elytris cupreis, adhuc crebrius lineatim punctatis. Gracilis, æneo-nigra, thorace subviridi-æneo, elytris cupreis parum nitidis marginibus viridibus; capite post oculos elongato-oblongo, lævi; thorace medio modice rotundato, prope apicem angustato, dorso lineatim grosse punctato, prosterno grosse punctato; elytris ante medium paullo angustatis, post medium dilatatis, apice subflexuoso-truncatis, angulo exteriori acuto vix producto, suturali recto, dorso lineatim punctato fere striato, punctis sat parvis rotundatis passim fere æqualiter approximatis, rarissime in foveolas confluentibus.

♂ segmentis ventralibus tribus intermediis medio plagis duabus parvis pilifero-punctatis pilis nigris, tibiis quatuor posterioribus versus apicem intus pilosis, metasterno nudo.

♀ antennis articulo 8° valde, 9°–11^m parum abbreviatis.

Long. 13–16 millim.

Hab. GUATEMALA, San Gerónimo (*Champion*).

Belongs to the *A. infuscata* group, notwithstanding the approach to the punctate-striate form of the elytral sculpture.

11. **Agra fada.** (Tab. XII. fig. 17.)

Agra fada, Chevrolat, Rev. et Mag. Zool. 1856, p. 352.

Hab. MEXICO, Cordova (*Sallé*).

The type specimen of this beautiful little species is in the Sallé collection. It is a male, and has a punctate-pubescent area of limited extent in the middle of the hinder part of the metasternum; the trochanters, femora, and abdomen have no dense pubescence.

12. **Agra rufiventris.**

Nigro-ænea, ventre rufo, antennis (scapo infuscato excepto), tibiis et tarsi fulvo-testaceis, elytris purpureo-cupreis, plaga posteriori communi antice apud suturam angustata, postice plus minusve dilatata, rufescenti; capite post oculos parum elongato, brevi et lato, occipite medio lineola impresso, utrinque unipunctato; thorace medio modice dilatato, antice gradatim angustato, dorso sat crebre sed lineatim punctato, antice lineola mediana elevata, margine laterali medio sat prominenti, prosterni lateribus convexis sat crebre

punctatis; elytris apice subflexuoso-truncatis, angulo suturali fere recto, exteriori dentato, dorso acute punctulato-striato, striis 2^a et 4^a punctis setiferis plurimis.

♂ mesosterno et ventris omnibus segmentis medio, trochanteribusque posticis intus, dense pilosis.

♀ antennis art. 8^o haud abbreviato.

Long. 10–12 millim.

Hab. PANAMA, Bugaba, Volcan de Chiriqui (*Champion*).

Allied to *A. chlorocera* (Chaud.) and *A. brevicornis* (Bates), but the thorax not quite so densely and evenly covered with punctures as in the section to which these species belong. The punctuation varies in some examples, leaving linear smooth spaces almost as clear as in the section "thorace plagiatis punctato" of Chaudoir. The colour of the elytra varies much, partly according to the maturity of the individuals, the normal colouring being ferruginous with a coppery tinge behind and along the suture towards the base, and dark purplish coppery on the sides and near the base, the base itself being more or less brassy green like the thorax; in immature examples the ferruginous posterior part of the elytra is pale tawny, and the base and sides of the base are golden green or coppery. This disposition of colours is similar to that seen in *A. fada*, in which, however, they are much more sharply defined and brilliant.

13. *Agra semifulva*. (Tab. XII. fig. 18.)

A. rufiventris quoad colores simillima; sed differt thorace lineatim grosse punctato, lineis longitudinalibus lævibus, elytris apice utrinque breviter tridentatis.

Long. 13–16 millim. ♂ ♀.

Hab. PANAMA, Bugaba (*Champion*).

Exactly similar in colour and general form to *A. rufiventris*, except that the antennæ have the three basal joints brown (the second and third are sometimes a little dark in *A. rufiventris*). The species differs, however, in the punctuation of the thorax, which would bring it into quite a different section according to Chaudoir's classification. The tridentate form of the elytral apex is caused by the flexuous truncature being much stronger than in *A. rufiventris*.

Notwithstanding these important structural differences, it seems very probable that this is only a highly developed variety of the same species.

14. *Agra fulvicauda*.

A. rufiventris et *A. semifulvæ* affinis. Nigro-ænea, thorace et elytris viridi-æneis, his versus apicem indeterminate fulvis, apice anguste nigro-marginato; antennis (scapo excepto), abdomine et tarsi fulvis; capite post oculos brevi subquadrato, occipite medio lineola impressa utrinque unipunctato; thorace fere sicut in *A. rufiventris* modice dilatato, antice gradatim angustato, sat crebre punctato, spatio longitudinali utrinque lævi; elytris apice flexuoso-truncatis, angulo suturali recto, exteriori dentato, dorso acute punctato-striato (punctis versus apicem minoribus), interstitiis tertio et quinto punctis nonnullis majoribus (anterioribus juxta strias secundam et quartam sitis).

♀ antennis articulo 8^o haud abbreviato.

Long. 11 millim.

Hab. NICARAGUA, Chontales (*Janson*).

One example only, apparently a female.

15. **Agra multisetosa.** (Tab. XII. fig. 19.)

A. immersa (Klug) affinis. Setis longis erectis passim obsita, nigro-ænea, elytris rubro-cupreis, basi marginibus suturaque viridi-auratis; antennis rufo-piceis, articulis basi pallidioribus; capite post oculos brevi, rotundato, occipite medio fovea rotunda; thorace medio sat rotundato, antice gradatim angustato, dorso et prosterno confuse suberebre punctatis; elytris apice sinuato-truncatis, angulis suturali et exteriori longe dentatis, punctato-striatis, striis secunda et quarta punctis plurimis sextaque paucis magnis.

Long. 10 millim. ♀.

Hab. PANAMA, Bugaba (*Champion*).

The setæ on the body and legs are as numerous as in *A. immersa*, but a little longer and more rigid; they are blond in colour. The head is shorter behind the eyes than in *A. immersa*, and the thorax shorter and conspicuously less narrowed, and not at all sinuate, towards the apex.

16. **Agra læticolor.**

Agra læticolor, Bates, Proc. Zool. Soc. 1878, p. 609¹.

“Ad sectionem *A. femorata* (Kl.) pertinet. Gracilis, viridi-ænea, antennis pedibusque rufis, femoribus basi obscurioribus; capite maxime elongato, lævi, post oculos gradatim rotundato-angustato, juxta collum haud tumidulo; thorace angusto, elongato-conico, sulcis 4 longitudinalibus, foveolata-punctatis, impressis, quorum duobus dorsalibus antice carina abbreviata separatis; elytris ante medium sinuatim angustatis, postice iterum dilatatis, apice utrinque flexuoso-truncatis, angulo exteriori subspinoso, suturali acute dentato, supra punctato-striatis, interstitiis inter se lineolis transversis multifariam conjunctis.

“♂ metasterno medio, femoribusque basi infra rufo-pilosis.

“Long. 7 lin.” (15 millim.).

Hab. NICARAGUA, Chontales (*Belt*¹).

The hairy metasternum and base of the thighs in the male show that this species belongs really to the section *A. cytherea*, and not to that typified by *A. femorata*. The sculpture of the elytra bears only a deceptive resemblance to various species of the *A. femorata* group; it consists of punctured striæ as in *A. cytherea* and allies; but the striæ are frequently interrupted by elevation crossing from one interstice to another. The head in this and the following species is excessively prolonged behind the eyes.

17. **Agra elaina.** (Tab. XII. fig. 20.)

A. læticolori valde affinis, differt pedibus nigro-æneis antennisque nigro-piceis basi æneis. Gracilis et elongata, olivaceo-ænea; capite post oculos valde elongato, subovato, lævi; thorace angusto, sublineari, antice gradatim angustato, dorso lineatim grosse punctato, intra marginem a basi usque ad apicem sulcato; elytris apice valde flexuoso-truncatis, angulis suturali et exteriori longe dentatis, striis hic illic lineolis elevatis transversis interruptis.

Long. 13 millim. ♀.

Hab. BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); PANAMA (*coll. Bates*).

18. **Agra oliviella.**

A. elainæ quoad formam et colorem simillima, sed multo differt, capite post oculos modice elongato, occipite medio fovea magna et utrinque puncto conspicuo notato; thorace antice minus gradatim angustato, sulco laterali confluentem punctato, linea dorsali antice elevata, elytris punctato-striatis striis haud interruptis,

interstitio tertio tripunctato. Saturate olivaceo-ænea, antennis pedibusque chalybeo-nigris; elytrorum truncatura vix flexuosa, angulo suturali breviter, exteriori latius et longius, dentato; antennis articulo octavo haud abbreviato.

Long. 13 millim. ♀.

Hab. GUATEMALA, Teleman (*Champion*).

One example only.

19. *Agra mexicana*.

Agra mexicana, Buquet, Ann. Soc. Ent. Fr. 1835, p. 606¹; Chaudoir, ibid. 1861, p. 132.

Hab. MEXICO¹, Cordova (*Sallé*); GUATEMALA, Mirandilla, Teleman, Panzos (*Champion*).

Varies in its metallic coloration like *A. varians*, to which it is extremely closely allied. One example, from Panzos, is dark olivaceous green. The male has the whole centre of the mesosternum and abdomen, the inner side of the trochanters and femora, and the four posterior coxæ densely hairy, more hairy than in *A. varians* ♂, and resembling *A. cytherea* ♂.

20. *Agra chrysopteryx*. (Tab. XII. fig. 22.)

Agra chrysopteryx, Bates, Proc. Zool. Soc. 1878, p. 609¹.

"*A. rutilipenni* proxime affinis et similis. Castaneo-rufa, elytris (epipleuris exceptis) læte viridi-auratis; capite post oculos breviter semiovato, punctis nonnullis piliferis impresso; thorace medio modice rotundato-dilatato, paulo ante apicem fere subito angustato, lineatim subsparsum irregulariter foveato-punctato, longe piloso; elytris apice subrecte oblique truncatis, angulo exteriori breviter dentato, suturali rotundato, supra acute punctulato-striatis, striis secunda et quarta 5-6-punctatis, stria sexta bipunctata.

"♂ metasterno et abdomine medio longe rufo-barbatis.

"Long. 7 lin."

Hab. NICARAGUA, Chontales (*Janson*¹); PANAMA, Volcan de Chiriqui (*Champion*).

21. *Agra purpurea*. (Tab. XII. fig. 21.)

A. rutilipenni affinis. Cupreo-fusca, elytris (interdum olivaceo-æneis) marginibus læte igneo-cupreis, corpore subtus nigro-æneo nitido, antennis basi excepta piceo-rufis; capite post oculos modice elongato, ♀ quadrato, ♂ semiovato, occipite punctis nonnullis magnis; thorace sat lato, antice gradatim modice angustato, grosse lineato-punctato; elytris apice valde flexuoso-truncatis, sutura dehiscenti, angulo haud producto, angulo exteriori breviter dentato, punctulato-striatis, striis secunda, quarta et sexta punctis magnis et conspicuis plurimis.

♂ metasterno ventreque medio, trochanteribus et coxis 4 posterioribus femoribusque intermediis intus dense hirsutis.

♀ antennis articulo octavo haud abbreviato.

Long. 17 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

The underside of the body and the epipleuræ of the elytra are shining, generally dark greenish brassy; the upper side is very dark purple-brown, the thorax more brightly metallic and the elytra sometimes greenish; the cincture of brilliant purplish copper which surrounds the elytra is limited on the sides to the marginal interstice,

the basal and apical border being a little broader, and the suture being only very narrowly and sometimes indistinctly edged with the same colour.

22. *Agra ictina*.

A. purpurea affinis, sed multo minor et gracilior, supra cupreo-fusca, versus elytrorum margines lætius rubro-cuprea, epipleuris viridi-æneis, antennis pedibusque piceis; capite post oculos modice elongato, ovato, occipite punctis magnis paucis; thorace medio sat rotundato, prope apicem angustato, dorso grosse punctato, punctis numerosis plerumque confluentibus, interspatiis lævibus, angustis, longitudinalibus; elytris angustis, apice flexuoso-truncatis, sutura dehiscenti angulo haud producto, angulo exteriori breviter dentato, punctato-striatis, striis secunda et quarta punctis majoribus sat conspicuis.

♂ metasterno ventreque medio, coxis trochanteribusque 4 posterioribus intus, dense pilosis; femoribus fere nudis.

♀ antennis articulo octavo haud abbreviato.

Long. 12-14 millim.

Hab. MEXICO, Cordova (*Höge*); BRITISH HONDURAS, Rio Hondo (*Blancaneaux*); GUATEMALA, Telemán, Cubilguitz (*Champion*).

The colour of the elytra is dullish purple coppery, a little brighter sometimes on the second or third marginal interstice; but the margin of the elytra itself and the epipleura are always green. The thorax is sometimes bright brassy, and the punctuation, as in other species, is variable; it is, however, more crowded than usual in the allied species, the punctured stripe near the dorsal line consisting of punctures often three abreast, but very irregular.

23. *Agra auronitens*.

A. mexicana primo intuitu similis sed elytris late viridi-auratis, antennis, palpis maxillaribus pedibusque rufis, geniculis fuscis; capite post oculos valde elongato quadrangulato, lævi; thorace sicut in *A. mexicana* punctis lineatis paucioribus; elytris apice utrinque valde bispinosis, punctulato-striatis, striis secunda et quarta punctis plurimis modice conspicuis.

♀ segmento ultimo ventrali medio apice profunde et anguste inciso; antennis articulo octavo præcedenti multo breviori.

Long. 15½ millim.

Hab. GUATEMALA, Telemán (*Champion*).

One example only.

24. *Agra panamensis*.

Agra panamensis, Bates, Proc. Zool. Soc. 1878, p. 609¹.

“Ad sectionem *A. aenea* (F.) pertinet; at cæteris speciebus distinctissima. Latior, nigra, partibus oris, antennis, trochanteribus, genibus, tibiis et tarsis fulvo-castaneis; capite lato, pone oculos quadrato, margine posteriore ante collum exacte recto, supra impunctato; thorace quam caput longiore, pone medium rotundato-dilatato, antice usque ad apicem gradatim angustato, supra medio fere lævi, juxta marginem sparse punctato-impreso; elytris apice arcuatim truncatis, angulo exteriori fortiter spinoso, suturali acute dentato, supra vix inæqualibus, punctato-striatis, striis secunda et quarta seriatim rotundato-foveolatis, sexta et octava magis confuse foveolatis.

“♂ antennis articulo octavo multo abbreviato.

“Long. 12 lin.”

Hab. PANAMA (*Mr. E. Bartlett*).

This species would be better placed in the group having punctate-striate elytra than in the *A. ænea* group; the foveolæ of the elytra are caused, not by the coalescence of the striæ-punctures, but by the number and size of the large punctures of the second, fourth, and sixth striæ. The apical ventral segment has a triangular notch almost as in *A. auronitens*.

It is doubtful if the specimen described was from the isthmus of Panama. I think it probable that it was taken by Mr. Salmon, who collected chiefly in the Cauca valley of Colombia.

25. *Agra rufoænea*.

Agra rufoænea, Chevrolat, Col. Mex. ii. no. 182¹.

Hab. MEXICO, Cordova (*Sallé*¹).

The type specimen (a female) in the Sallé collection appears not to have been met with since it was taken by M. Sallé, some time before 1835, the date of the description. It is closely allied to *A. panamensis*, and has the apical ventral segment similarly notched in the middle; the punctures of the alternate elytral striæ are, however, very much smaller, and the legs &c. differently coloured.

26. *Agra dimidiata*. (Tab. XII. fig. 23.)

Agra dimidiata, Chevrolat, Rev. et Mag. Zool. 1856, p. 352¹.

Hab. MEXICO¹, Toxpam (*Sallé*).

Unique in the Sallé collection. The specimen is a female, with an extraordinary modification of the apical ventral segment, the apex being very broadly and deeply excised, with a central spine curving down the middle of the excision from the body of the segment. The eighth antennal joint is not abbreviated.

27. *Agra championi*.

A. dimidiatæ affinis; nigra nitida, elytris et abdomine castaneo-fulvis; capite post oculos late quadrato, occipite punctis nonnullis parvis; thorace post medium sat rotundato-dilatato, ante basin fere subito constricto, antice gradatim attenuato, dorso lineatim grosse punctato; elytris apice utrinque valde bispinosis, punctulato-striatis, striis secunda et quarta punctis majoribus parum conspicuis.

♀ segmento ultimo ventrali apice late exciso, excisura bilobata, medio breviter spinosa; antennis articulo octavo haud abbreviato.

Long. 19 millim.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

One example only.

The excision in the apical margin of the terminal ventral segment is so complex in outline that a verbal description is scarcely possible. It is a very broad bilobed notch, the body of the segment projecting as a square plate between the two lobes, and the front edge of the plate being spinose in the middle.

28. **Agra rugoso-striata.**

Agra rugoso-striata, Chaudoir, Bull. Mosc. 1854, i. p. 318¹.

Hab. MEXICO, Campeche (*coll. Mniszech*¹).

I have seen nothing at all answering to the description of this species.

29. **Agra virgata.** (Tab. XII. fig. 24.)

Agra virgata, Chevrolat, Rev. et Mag. Zool. 1856, p. 352⁴.

Hab. MEXICO¹, Cordova (*Sallé*).

The type specimen (a female) is in the Sallé collection, and seems to be the only example known of this peculiar species. The apical ventral segment is of the usual form in the females of the genus, viz. broadly and triangularly emarginated.

30. **Agra obscuripes.**

Agra obscuripes, Chaudoir, Bull. Mosc. 1854, i. p. 311¹.

Hab. MEXICO (*coll. Mniszech*¹).

This species is doubtful. It was described from a single male specimen, and placed next to the South-Brazilian *A. rufescens*, from which it was said not to differ in the punctuation of the elytra. The author omitted it in his last Revision of the genus (Ann. Soc. Ent. Fr. 1866), both from the body of the memoir and the alphabetical list. It appears scarcely different from the *A. nigripes* described by Chaudoir himself in 1847. A specimen from Playa Vicente in the Sallé collection, named *A. obscuripes*, does not differ from *A. oblongopunctata*, and bears no near resemblance to *A. rufescens* in the sculpture of the elytra.

Subfam. *PSEUDOMORPHINÆ*.

The curious insects which form this subfamily differ in many respects from all other Truncatipennes. One of their chief characters is the possession of a groove or cleft in the cheeks, on each side of the mentum, for the insertion of the base of the antennæ. Other characters are the narrow mesosternum, the contiguous posterior coxæ, and the rigid contractile legs. The ligula is horny; and the paraglossæ are not conspicuous as thin membranous appendages, more or less attached to the sides of the ligula, as in most other Truncatipennes. Dr. Horn treats the group as one of the three primary divisions of the Carabidæ; but I hesitate to adopt this view, until the morphological value of the peculiar characters of the group shall have become better understood. They may be only adaptations of structure to the peculiar subcortical habits of the insect, just as the Scaritinæ, for example, have certain parts quite as widely modified to suit their fossorial mode of life.

PSEUDOMORPHA.

Pseudomorpha, Kirby, Trans. Linn. Soc. xiv. p. 98 (1825).

Heteromorpha, Kirby, ibid. t. 3. fig. 3.

Drepanus, Illiger, Mag. f. Insektenkunde, vi. p. 344 (1807), sine char.; Dejean, Sp. Gén. Col. v. p. 434 (1831).

Axinophorus, Dejean, Iconogr. i. p. 176.

Species of this genus have been recorded from Oceania and Australia as well as from America. It is doubtful, however, whether the Australian species really belong to the genus. Eight species have been described from widely different parts of America, North and South.

1. ***Pseudomorpha pilatei***. (Tab. XII. fig. 25.)

Pseudomorpha Pilatei, Chaudoir, Rev. et Mag. Zool. 1862, p. 490¹.

Hab. MEXICO, Yucatan (*Pilate*¹).

A specimen of this species in the Sallé collection has a similar transverse pilose band in the middle of the fourth and fifth ventral segments which Dr. Horn mentions as distinguishing his *P. cronkhitei* of California.

2. ***Pseudomorpha behrensi***.

Pseudomorpha Behrensi, Horn, Trans. Am. Ent. Soc. 1870, p. 76¹.

Hab. NORTH AMERICA, California¹.—MEXICO, Ciudad in Durango (*Forrer*).

S U P P L E M E N T.

DURING the progress of the foregoing work collections have been continually arriving containing new species, belonging, in many cases, to genera which had already been dealt with. These, together with a few others contained in the earlier collections, decision upon which was deferred until the arrival of further material, are described in the following Supplement, which will be final. Some synonymical notes and all the more important new localities of previously described species are added.

Tetracha carolina, var. **cyanides** (p. 1).

I am informed by Mr. Flohr that the locality for this variety is the neighbourhood of Oaxaca, not Jalapa as stated. Herr Höge, in labelling his large collection on his return to Europe, attached by mistake the locality "Jalapa" to many of the Oaxaca species, and *vice versá* "Oaxaca" to species found at Jalapa.

CICINDELA (p. 4).

4 (A). **Cicindela obsoleta**.

Cicindela obsoleta, Say, Journ. Acad. Nat. Sci. Phil. iii. (1823), p. 143.

Var. Elytris subviolaceo-tinctis, immaculatis corporeque subtus cyaneo.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

Agrees nearly with the typical form of the species from the Rocky Mountains in the colour of the upper surface; but the under surface is richly metallic blue, with here and there a greenish tinge, nearly as in the var. *vulturina*, Leconte.

7 (A). **Cicindela euthales**.

Cicindela euthales, Bates, Ann. & Mag. Nat. Hist. ser. 5, vol. ix. p. 319.

"*C. catharinæ* quoad formam similis, sed corporis lateribus nudis. Viridis, opaca; fronte, sutura lateribusque elytrorum nitidis; labro albo margine antico medio late producto tridentato, utrinque sinuato, angulis rectis; fronte verticali utrinque (et vertice) subtilissime striata; capite inter oculos haud concavo; palpis nigris; thorace transverso, lateribus albo pilosis vix rotundatis, antice angulatis, dorso transversim indistincte striguloso; elytris apice conjunctim rotundatis, dorso haud conspicue sculpturatis, immaculatis; corpore subtus viridi-nitido, lateribus cupreo-violaceis nudis; pedibus cupreis.

"*Var.* Nigra, opaca, abdomine medio et apice nitido; labro albo.

"Long. $4\frac{1}{2}$ – $5\frac{1}{2}$ lin. ♂ ♀.

"*Hab.* MEXICO, Ciudad in Durango (*Forrer*).

"Of similar form to *C. catharinæ*, but more closely allied to *C. ioessa* in the elytra not being visibly sculptured and in the naked sides of the body beneath. It differs from

C. ioessa by the forehead being more vertical and distinctly strigose on each side, and (in the green form) by the different colour of the side margins of the elytra and the under surface of the body." (Tab. XIII. fig. 3.)

10 (A). ***Cicindela nephelota***.

Cicindela nephelota, Bates, Ann. & Mag. Nat. Hist. ser. 5, ix. p. 319.

"Minus elongata, postice paullo dilatata, supra fusco-ænea opaca nigro-fusco varia, elytris vitta marginali (ab humero usque ultra medium continuata, post humerum a margine paullulum remota) intus ramulos duos emittente, primum brevem, secundum obliquum, subrectum versus suturam extensum, lunula apicali et gutta antico-discoïdali, albis; labro albo, antice medio paullulum producto denticulato, utrinque sinuato, angulis subrectis; palpis rufo-testaceis, articulis apicalibus cupreo-æneis; capite toto valde strigoso, inter oculos paullo concavo; thorace parvo, lateribus medio rotundatis nec angulatis, disco utrinque convexo, longe incumbenti-piloso, striguloso; elytris inæqualibus, haud profunde punctatis, signaturis albis albo-fusco marginatis; corpore subtus nitido, cyaneo, pectoris lateribus igneo-cupreis parce pilosis; pedibus cupreis.

"Long. $3\frac{3}{4}$ - $4\frac{1}{4}$ lin. ♂ ♀.

"*Hab.* MEXICO, Ciudad in Durango (*Forrer*).

"This curious little species is not closely allied to any *Cicindela* known to me. It seems to approach nearest *C. semicircularis*."

10 (B). ***Cicindela chrysippe***. (Tab. XIII. fig. 2.)

Convexa, lætissime subaurato-viridis, nitida, elytris apice obtuse rotundatis, sutura dentiformi, omnino subtiliter alutaceis, obsolete punctatis, vitta marginali (humeros et apicem haud attingente) lævi fusco-purpurea, utrinque punctis submarginalibus albis duobus, prima pone medium, secunda ante apicem; corpore subtus cyaneo, pedibus aurato-cupreis; palpis piceo-cupreis; collo crasso, occipite convexo; labro testaceo lateribus auratis, (♂) medio valde producto longe tridentato, lateribus utrinque valide unidentatis.

Long. $4\frac{1}{4}$ lin. ♂.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

This beautiful little species cannot be placed in any of the numerous groups indicated by Chaudoir in his Catalogue of the Cicindelidæ. In some of its characters it approaches *C. pulchra* (Say), especially resembling that species in the form of the head, but differing greatly in the labrum, which in the male is greatly produced in the middle, the produced part having three acute teeth (the middle one longest), and the sides each having also a broad and sharp tooth. The head is finely anastomose-strigose, with the usual more distinct striæ along the forehead near each eye. The palpi are dark piceous, with a red-coppery tinge. The colour of the labrum is not clearly visible in the single specimen sent; but it is metallic on the sides, and apparently non-metallic and dingy testaceous in the middle. The thorax is rather narrower than the head (eyes included) and much more narrowed (in a straight line) to the base than is usual in the genus; its surface is only faintly sculptured and shining. The elytra are subcylindrical and convex; their surface moderately opaque, with very minute sculpture and numerous very shallow, scarcely perceptible punctures; the larger punctures or foveæ so commonly seen in *Cicindelæ* being also present, but very faint. The body beneath is entirely free from hairs, of which also very few are visible on the femora and four anterior coxæ.

10 (C). **Cicindela lemniscata.**

Cicindela lemniscata, Leconte, Proc. Acad. Phil. 1854, p. 220¹.

Hab. NORTH AMERICA, Arizona, California¹.—MEXICO, Northern Sonora (*Morrison*).

20 (A). **Cicindela favergeri.**

Cicindela Favergeri, Audouin et Brullé, Archives du Muséum, i. p. 130, t. viii. fig. 6¹; Reiche, Revue Zool. 1842, p. 241².

Hab. PANAMA, San Feliz (*Champion*), Matachin (*Schunke*).—SOUTH AMERICA, Colombia^{1 2}, Ecuador.

Mr. Champion's examples belong to the variety in which the marginal white streak of the elytra is absent. Both forms are mentioned by Reiche as found together in Colombia, and Mr. Buckley took them both equally near Canelos, Ecuador.

25 (A). **Cicindela dugesi.**

C. punctulata similis, sed minor, lætius cuprea, abdomine rufo etc. Sat angusta, fuscescenti-rubro-cuprea, subnitida, subtus cum femoribus aurato-ænea; abdomine trochanteribusque omnibus rufis, tibiis rubro-cupreis, tarsis viridibus vel cupreis; elytris utrinque apud discum fasciola parum flexuosa obliqua guttaque paullo posteriori, albis; labro medio triangulariter producto (in ♂ minus quam in ♀) margine anteriori flexuoso dente parvo mediano.

Long. $3\frac{1}{2}$ – $4\frac{1}{4}$. ♂ ♀.

Hab. MEXICO, Tupataro, Morelia, Taretan (*Flohr*).

A distinct species of the *rufiventris* group recently sent me by Mr. Julius Flohr. In general form it is very similar to the common North-American *C. punctulata*, but it is of a redder coppery hue, and differs greatly in other ways. In shape of head and degree of prominence of eyes it resembles *C. rufiventris*, to which it is no doubt allied. The forehead is strongly strigose on each side, the occiput convex and irregularly sculptured. The thorax is more rounded in the middle of its sides than in *C. rufiventris* and allies, but its grooves are deep and blue-coloured as in those species, and the disk faintly transverse strigose. The elytra are narrower and more convex, but are similarly shaped at the apex, and have a minute sutural tooth; their surface is finely alutaceous, with minute shallow punctures set in greenish spots, and a row of larger ocellated punctures irregularly parallel to the suture, besides a shorter row of similar impressions in the basal depression on each side.

27 (A). **Cicindela guttifera.**

Cicindela guttifera, Leconte, Trans. Am. Phil. Soc. xi. 1856, p. 42¹.

Hab. NORTH AMERICA, New Mexico¹.—MEXICO, Northern Sonora (*Morrison*).

Generally considered to be a southern variety of the common North-American *C. duodecimguttata* (Dejean).

Cicindela lugens (p. 5).

Mr. Flohr informs me that Höge's specimens were not taken at Jalapa, but at

Cuantitlan. The species is almost confined to the 'tierra fria,' and is pretty abundant in the States of Mexico, Puebla, and Michoacan.

Cicindela luteolineata (p. 5).

Also erroneously labelled "Jalapa" by Höge. His specimens were taken, as Mr. Flohr informs me, at San Angel, near the city of Mexico. The species is common also near Maravatio and Morelia in the State of Michoacan.

Cicindela viatica (p. 5).

Mr. Flohr has never seen this species at Jalapa during his long residence, and thinks M. Sallé is mistaken in his locality. It is known to occur near San Angel and Toluca.

Cicindela catharinæ (p. 6).

Jalapa here is also an erroneous locality. Besides the neighbourhood of Mexico city it is taken in the Llanos de Apam and at Esperanza.

Cicindela clarina (p. 6).

Mr. Flohr has taken the species at Maravatio and near Chalco.

Cicindela rufiventris (p. 7).

To the Mexican localities given add:—Northern Sonora (*Morrison*), Mescales, Chihuahua (*Hepburn*).

Mr. Morrison's specimens are labelled *C. 16-punctata*. They differ constantly from the same variety found near the city of Mexico by their larger size and more coppery under surface.

Cicindela hydrophoba (p. 8).

Mr. Flohr has recently sent us a new local form of this very variable species.

Var. *C. taretana* (Flohr MS.). Vitta humerali-basali elongata et cum fascia mediana conjuncta.

Hab. MEXICO, Taretan (*Flohr*).

The elytral markings are more dilated than in the typical *hydrophoba*, and are all prolonged so as to form a nearly continuous but very irregular median fascia from base to apex; *i. e.* the upper part of the basal lunule is joined to the lower part and prolonged towards the middle of the elytron, where it meets a much prolonged upper angle of the median fascia, and the upper part of the apical lunule being also prolonged, little is wanting to connect it also with the lower part of the median fascia. The insect is decidedly longer and relatively narrower than the type form, and might perhaps be considered a distinct species. The elytral markings, however, vary, and some examples, in which the junction of the spots is not effected, form a transition to the Chontales form of *C. hydrophoba*.

Cicindela flohri (p. 9).

Jalapa as a locality again is wrong. The species does not occur, as Mr. Flohr informs me, out of the valley of Mexico.

Cicindela rectilatera (p. 10).

To the Mexican localities given add:—San Pedro Coahuila (*Dr. Palmer*).

Cicindela papillosa (p. 13).

To the localities given add:—PANAMA, Volcan de Chiriqui (*Champion*).

Some examples from this locality have a silky metallic green or golden lustre on the sides of the upper surface. Chontales examples are often slightly metallic; in Mexico the insect is almost always sooty black above.

Cicindela viridisticta (p. 14).

Var. *arizonensis*. A typo differt elytrorum lateribus sicut dorso punctatis subnitidis, nec impunctatis, politis.

Hab. NORTH AMERICA, Arizona (*Morrison*).—MEXICO, Northern Sonora (*Morrison*).

Cicindela unicolor (p. 15).

Dr. Eugène Dugès informs Mr. Flohr that this species occurs in the Barranca de Beltran, on the road between Guadalajara and Colima, also near Guanajuato.

36 (A). **Cicindela castissima**. (Tab. XIII. fig. 1.)

C. signata (Dej.) affinis; minor et angustior, subtus cum pedibus viridi-aurata, elytris albis sutura angusta (versus scutellum paullo dilatata) punctisque nonnullis medio basi viridi-æneis; capite thoraceque cupreis, hoc creberrime sculpturato opaco, illo versus oculos nitidiori; labro ♀ latissimo, brevi, antice fere recto edentato, albo; thorace trapezoideo, lateribus quam in *C. signata* ♀ magis rectis; elytris versus apicem oblique angustatis, apice ipso intus obliquo fere truncato; thorace margine corporeque subtus lateribus dense albo-incumbenti-pilosis.

Long. $5\frac{1}{2}$ lin. ♀.

Hab. Arcas Islets, Gulf of Mexico.

45 (A). **Cicindela punctulata**.

Cicindela punctulata, Oliv. Ent. ii. 33, p. 27, t. 3. fig. 37.

Hab. MEXICO, Northern Sonora (*Morrison*).

Mr. Morrison sends one example of the green variety of this common North-American species.

ODONTOCHEILA (p. 15).

5 (A). **Odontocheila exilis**. (Tab. XIII. fig. 4.)

O. cinctula simillima, forsan ejus varietas geographica. Paullo minor et gracilior; elytrorum lateribus latius auratis, corporeque subtus totò cyaneo subviolaceo.

Long. $4\frac{1}{2}$ -5 lin. ♂ ♀.

Hab. PANAMA, Volcan de Chiriqui, Bugaba (*Champion*).

One of the forms of the subgroup to which *O. iodopleura* and *O. cinctula* belong; of slender form and dull purplish coppery brown colour, with the usual band of bright coloration along the lateral margin of each elytron exhibiting the prismatic colours; the band having the red and yellow on the inner side and the violet on the vertical margin, all the colours metallic. In *O. iodopleura* the prismatic band is very broad, a large portion being visible when the insect is viewed from above, and in *O. cinctula* none of it is clearly seen from that position. *O. exilis* is intermediate in this respect, a considerable width of golden being conspicuous, especially near the base and shoulders. In the narrower and more cylindrical thorax, and in general colour, *O. exilis* resembles *O. cinctula* closely. The hind trochanters are dark piceous in both forms, pale only in immature individuals.

CTENOSTOMA (p. 17).

Ctenostoma ibidion (p. 18).

To the locality given add:—PANAMA, Bugaba (*Champion*).

CARABUS (p. 20; to precede the genus *Calosoma*).

Carabus, Linn. Syst. Nat. ed. 12, i. 2, p. 668; Schaum, Naturgesch. Ins. Deutschl. I. i. p. 117.

Among the small number of species of Coleoptera recently collected by Mr. Forrer in the elevated districts of the Province of Durango is a species of this well-known genus, the first true *Carabus* yet found in Mexico or any part of Tropical America. The number of species or well-marked local varieties of the genus at present known is probably not less than 400. Recent systematists separate the cluster of beautiful species found in Southern Chili, and the *Carabus deckeni* of Mt. Kilimanjaro near the Equator in South Africa, from the genus; and if this is a correct view the distribution of *Carabus* is restricted to the temperate and subarctic zones of the north, reaching its most southerly limit probably in Southern China and, as we now find, Mexico.

1. **Carabus forreri**. (Tab. XIII. fig. 5.)

Carabus forreri, Bates, Ann. & Mag. Nat. Hist. ser. 5, ix. p. 320.

“Elongatus, niger, subnitidus, capite lævi, epistomate utrinque fovea profunda, labro medio excavato; thorace lævi, lateribus fere æqualiter arcuatis, margine explanato fortiter reflexo, angulis posticis longe productis, apice obtusis; elytris elongato-ovatis obsolete striato-punctulatis punctisque majoribus triplici serie; abdominis segmentis 3 apicalibus basi transversim sulcatis.

“Long. $10\frac{1}{2}$ lin. ♀.

“*Hab.* MEXICO, Ciudad in Durango (*Forrer*).

“Of the elongate and narrow form of *C. agassizi* and *C. tædatus*; but the thorax quite different from either of those species, being smooth, broadly margined, and approaching in shape that of *C. sylvosus*.”

CALOSOMA (p. 20).

Calosoma peregrinator (p. 21).

C. carbonatum (Leconte, Proc. Ac. Phil. 1862, p. 53) from New Mexico, according to Mr. Flohr, belongs to this species. In Mexico, Mr. Flohr adds, the species ranges from the 'tierra fria' down to the 'tierra caliente,' near Mexico city, Esperanza, Jalapa, Cordova, and Oaxaca. *C. scrutator* and *C. angulatum* have a similar wide range. *C. armatum* (believed by M. Gehin, according to Mr. Flohr, to be the same as *C. sayi*, Dej.) occurs among herbage in maize-plantations, at Plan del Rio, Almolonga, and Cordova. *C. læve*, *politum*, *striatulum*, *cicatricosum*, *depressicolle*, and *blaptoïdes* are never found except in the 'tierra fria.'

Calosoma angulatum (p. 21).

To the Mexican localities given add:—Chihuahua (*Hepburn*).

Calosoma cicatricosum (p. 23).

Mr. Flohr informs me that this species is totally different in its habits from *C. lævigatum*, *politum*, *striatulum*, and *striatipenne*, and he does not therefore adopt my suggestion that all five are varieties of one species. He says that *C. cicatricosum*, like *C. depressicolle*, is found only in the depth of pine and oak forests, where it occurs under stones and logs of wood, and appears to be nocturnal, whilst the other four species are seen running about fields in the daytime on the borders of forests.

Mr. Flohr gives as locality for this species only Atlapango, near Chalco.

14 (A). **Calosoma flohri**.

C. cicatricosum proxime affinis, sed differt capite et thorace sat grosse subsparsum punctatis elytrisque striato-punctulatis, interstitiis sparsim paullo grossius punctatis, utrinque punctis majoribus ocellatis triplici serie. Long. 8-10 lin. ♂ ♀.

Hab. MEXICO, Uruapam, San Juan Tumbio (*Flohr*).

Mr. Flohr has sent me this distinct species as a var. of *depressicolle* with punctured thorax. It differs, however, from *C. depressicolle* in the form of the thorax, not dilated anteriorly or subcordate, and in the greater convexity and steeper apical declivity of the elytra, in both of which characters it resembles more closely *C. cicatricosum*; from both it differs in its abundantly, but not very closely, punctured head and thorax, and in the fainter sculpture of the elytra, in which the striæ consist of rows of small punctures, and the flat interstices are irregularly sprinkled with large and small punctures, amidst which it is rather difficult to discriminate the usual triple row of large round punctures or foveæ, each with its central granule.

SCAPHINOTUS (p. 23 ; to follow the genus *Calosoma*).

Scaphinotus, Latreille, Icon. R. A. ed. 1, p. 87.

Cychrus (partim), Leconte, Classif. Carab. U. S. p. 398 (1853).

A genus hitherto known only from the Atlantic States of North America, where three or four species are found.

1. *Scaphinotus mexicanus*. (Tab. XIII. fig. 6.)

Cychrus (*Scaphinotus*) *mexicanus*, Bates, Ann. & Mag. Nat. Hist. ser. 5, ix. p. 320.

“Oblongus, niger, subviridi-tinctus; thorace cordato-quadrato, margine antico ut in *C. elevato* emarginato utrinque rotundato, postice multo magis angustato, angulis posticis longe productis acutis, margine laterali minus quam in *C. elevato* explanato-reflexo; elytris anguste oblongo-ovatis, humeris obtuse rotundatis valde explanato-reflexis, dorso punctato-striatis; abdominis segmentis 3 terminalibus basi transversim sulcatis; metasterno et abdomine impunctatis; epipleuris rugoso-punctatis.

“Long. $9\frac{1}{2}$ lin. ♂ ♀.

“*Hab.* MEXICO, Milpas, Ciudad in Durango alt. 5900 feet (*Forrer*).

“Of much narrower and less ovate form than *C. elevatus* or any other species of the genus, resembling at first sight a *Carabus*, e. g. *C. prestii*. The explanated and turned-up margins of the thorax and base of the elytra are of the same nature as in *C. excavatus*, but much narrower, and the thorax is rather strongly narrowed behind. The epipleuræ of the elytra are more feebly rugose-punctate than in *C. excavatus*; and the sides of the metathorax and basal ventral segments, instead of being sculptured as in that species, are smooth.”

PACHYTELES (p. 25).

13. *Pachyteles longicornis*. (Tab. XIII. fig. 7.)

P. mexicano paullo major, relative latior. Lævis, castaneo-rufus, antennis (scapo castaneo excepto), tibiis et tarsis fuscis; capite supra punctulato et inæquali, frontis margine ab oculi margine posteriori usque ad epistoma valde et acute elevato et angulato, collo depresso; antennis elongatis, articulis 4^o-10^m oblongis compressis; thorace fere sicut in *P. mexicano* cordato-quadrato, sed latiori, angulis anterioribus valde prominentibus acutisque, margine laterali haud crenato, integro, angulis posticis exstantibus acutis, dorso subtiliter sparsim punctulato; elytris humeris dentatis, dorso vix perspicue punctulato nec striato; femoribus anticis medio subtus obtuse angulatis.

Long. $4\frac{1}{4}$ lin.

Hab. PANAMA, Caldera (*Champion*).

Similar in general form and smooth surface to *P. mexicanus*, but relatively broader, less shining, and further distinguished by the strongly raised and acute margins of the forehead and the unusual (for this genus) length of the antennæ, which reach to one third the length of the elytra. The antennæ are relatively longer than in the Chilian species *P. marginicollis* and *biguttatus*, but differ from them in the more compressed, oblong joints 4-10, which are further distinguished by being naked on their flattened sides.

14. **Pachyteles inflatus.** (Tab. XIII. fig. 8.)

Ferrugineo-rufus, pedibus fulvescenti-rufis, elytris nigris; antennis crassis moniliformibus (articulis 9^o-11^m desunt); capite lato, oculis valde prominentibus; thorace brevi, subcordato, post medium valde angustato, angulis anticis breviter dentatis, posticis subrectis, margine laterali paullo incrassato reflexo; elytris apice utrinque in tuberculum magnum ovatum elevatis, brevissimis.

Long. 5 lin.

Hab. PANAMA, Bugaba (*Champion*). One example only.

The large elongated tuber at the apex of each elytron appears inflated; it projects a little over the apex and the lateral margin, both of which are concealed by it when viewed from above. The margin forms a deeply sunk groove, in which is the usual uninterrupted row of ocellated punctures. The tarsi, including the claw-joint, are formed of short and thick equally wide joints.

Pachyteles seriatoporus (p. 26).

To the localities given add:—PANAMA, Bugaba (*Champion*).

PASIMACHUS (p. 27).

1 (A). **Pasimachus elongatus.**

Pasimachus elongatus, Leconte, Ann. Lyc. N. Y. iv. p. 147.

Hab. NORTH AMERICA, Pacific States and Territories.—MEXICO, Northern Sonora (*Morrison*).

Pasimachus californicus (p. 28).

To the Mexican localities given add:—Maravatio (*Flohr*).

Pasimachus viridans (p. 28).

To the Mexican localities given add:—Pinos Altos in Chihuahua (*Hepburn*).

Pasimachus intermedius (p. 29).

To the localities given add:—PANAMA, Volcan de Chiriqui (*Champion*).

DISTICHUS (p. 29).

Distichus septentrionalis (p. 30).

To the locality given add:—GUATEMALA, Paso Antonio (*Champion*).

One example found by Mr. Champion since his return, amongst a portion of his collection which had been overlooked. It agrees with the Chontales specimen very closely, except that it has six instead of four punctures on the third elytral interstices, the three posterior ones being exactly in the same position and the other three all before the middle of the elytra. The antennæ are a little redder in colour.

SCARITES (p. 30).

2. **Scarites subterraneus.**

Scarites subterraneus, Fabr. Mant. Ins. i. p. 206.

Var. Elytris fere parallelis, striis parum impressis, interstitiis subconvexis.

Hab. MEXICO, Northern Sonora (*Morrison*).

I place this var. under *Sc. subterraneus* rather than under *Sc. quadriceps*, owing to its more convex and posteriorly more abruptly declivous elytra. It approaches very near the *Sc. quadriceps*, var. *lissopterus*, from Texas.

DYSCHIRIUS (p. 31).

3. **Dyschirius analis.**

Dyschirius analis, Leconte, Ann. Lyceum N. York, v. p. 196¹.

Hab. NORTH AMERICA, River Colorado¹.—MEXICO, Northern Sonora (*Morrison*).

OXYDREPANUS (p. 31).

Oxydrepanus mexicanus (p. 31).

To the localities given add:—PANAMA, Tolé (*Champion*).

SCHIZOGENIUS (p. 37).

Schizogenius tristriatus (p. 38).

To the localities given add:—PANAMA, Volcan de Chiriqui (*Champion*).

Differs from Mexican typical individuals by the central pair of frontal carinæ being thickened, and the three lateral ones on each side diminished in elevation and sharpness.

Schizogenius tenuis (p. 39).

To the localities given add:—PANAMA, Tolé (*Champion*).

7. **Schizogenius depressus.**

Schizogenius depressus, Leconte, Ann. Lyceum N. York, v. p. 197¹.

Hab. NORTH AMERICA, River Colorado¹.—MEXICO, Northern Sonora (*Morrison*).

PANAGÆUS (p. 41).

Panagæus sallæi (p. 41).

To the Mexican localities given add:—Chihuahua, Pinos Altos (*Hepburn*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, July 1884.

2 mm

CHLÆNIUS (p. 41).

3 (A). **Chlænius forreri.** (Tab. XIII. fig. 10.)

C. chrysopleuro proxime affinis; differt elytris (♂) opacis, capite thoraceque omnino æneo-viridibus. Angustius oblongus, niger; capite lævi; thorace magis quadrato, antice minus late rotundato, basi et in foveis profundis crebre punctato, disco fere lævi sicut in *C. chrysopleuro*; elytris nigris opacis leviter viriditinctis, margine et interstitio nono æneo-viridibus, minus profunde punctulato-striatis, interstitiis minus convexis punctulatis; antennis, palpis tarsisque piceo-rufis; prothoracis et metathoracis episternis parce grosse punctatis, cætero corpore inferiori lævi.

Long. 7 lin. ♂.

Hab. MEXICO, Ventanas 2000 feet (*Forrer*).

One example only, which seems specifically different from the greenish or blue colour-varieties of *C. chrysopleurus* by the rather flatter interstices and opaque surface of the elytra.

Chlænius aberrans (p. 42).

Chlænius aberrans, Chaudoir, in Oberthür's Coleop. Novitates, i. p. 36 (1853).

To the Mexican localities given add:—Michoacan (*Flohr*).

Chaudoir places this species, so different from all other American *Chlæni*, in a small Indian and African group, its nearest Central-American allies being *C. ruficauda*, *herbaceus*, and *cursor*.

6 (A). **Chlænius planulatus.** (Tab. XIII. fig. 9.)

C. aberranti affinis et similis, differt thorace latiore et subtilius punctato, elytris multo subtilius striatis, interstitiis planis. Niger, opacus; capite, thoracis lateribus elytrorumque marginibus viridi-æneis; frontis lateribus, colloque (haud depresso) punctatis; thorace postice minus quam in *C. aberranti* angustato, passim discrete haud grosse punctato; elytrorum striis haud impressis, interstitiis minute punctatis, 9° angustiori, striaque 9^a antice oblitterata; corpore subtus punctato, medio læviore.

Long. 8½ lin. ♂ ♀.

Hab. MEXICO, Ciudad in Durango (*Forrer*).

Has all the structural peculiarities of *C. aberrans*, so accurately described by Chaudoir, but is distinguished by the elytral striæ being scarcely at all impressed, and the thorax behind being much broader.

Chlænius leucoscelis (p. 42).

To the localities given add:—Northern Sonora (*Morrison*), Pinos Altos in Chihuahua (*Hepburn*).

Chlænius cæruleicollis (p. 42).

To the localities given add:—Northern Sonora (*Morrison*).

Two examples sent by Morrison as "*Chlænius*, n. sp."

Chlænius ruficauda (p. 43).

To the Mexican localities given add:—Northern Sonora (*Morrison*).

Chlænius chlorochrous (p. 43).

To the localities given add:—PANAMA, San Feliz (*Champion*).

26. **Chlænius regularis**.

Chlænius regularis, Leconte, Ann. Lyceum N. York, v. p. 179¹.

Hab. NORTH AMERICA, California¹.—MEXICO, Northern Sonora (*Morrison*).

27. **Chlænius glaucus**.

Chlænius glaucus, Leconte, Proc. Ac. Phil. 1856, p. 28¹; Chaudoir, Monogr. des Chlæn. 1876, p. 239.

Hab. NORTH AMERICA, Junction of Gila and Colorado.—MEXICO, Northern Sonora (*Morrison*).

Chlænius tricolor (p. 44).

To the localities given add:—Northern Sonora (*Morrison*).

The Sonora form is similar to that found at Mexico city and Puebla, in which the head and thorax are coppery green.

Chlænius purpureus (p. 45).

To the Mexican localities given add:—Chihuahua, Mescales (*Hepburn*).

OODES (p. 45).

Oodes mexicanus (p. 45).

In the second part of a posthumous revised monograph of the *Oodides* (Ann. Soc. Ent. Fr. 1882, p. 496 *) Baron Chaudoir places this species in the genus *Stenocrepis*, to which his former genus *Crossocrepis* (including *O. mexicanus*) is subordinated as a section. Mr. Flohr has sent me a ♂ and ♀ of the species from Mexico, precise locality not stated, only 11 millim. long, and a third example (♂) 12½ millim., the same length as the ♀ example in the Sallé collection and the specimens described by Chaudoir.

Hab. NORTH AMERICA, Texas (*Chaudoir*).—MEXICO (*Sallé, Flohr*), Las Vigas (*Flohr*).

* The second part was published May 30th, 1883.

STENOUS (p. 46).

Stenous duodecimstriatus (p. 46).

Add to the synonymy:—

Stenocrepis duodecimstriatus, Chaudoir, Monogr. des Oodides, Ann. Soc. Ent. Fr. 1882, p. 494¹.

Stenous Lecontei, Chaudoir, Bull. Mosc. 1857, ii. p. 41.

Oodes quatuordecimstriatus, Leconte, Ann. Lyc. N. York, iv. p. 331.

Oodes striatellus, Laferté, Ann. Soc. Ent. Fr. 1851, p. 272 (nota).

To the localities given add:—NORTH AMERICA, Texas, Louisiana¹.

This species belongs to the typical section of *Stenocrepis*, of which *Stenous* is a division in the revised monograph of Chaudoir above cited.

Stenous tibialis (p. 46).

Add to the synonymy:—

Oodes pallipes, Brullé, Voyage de D'Orbigny, vi. 2, t. 2. fig. 6¹.

To the localities given add:—SOUTH AMERICA, Bolivia¹.

S. chlorophanus, Erichson, is considered by Chaudoir to be distinct, though very closely allied.

Stenous gratiosus (p. 46).

Add as synonymy:—

Stenocrepis (Stenous) gratiosa, Chaudoir, Monogr. des Oodides, Ann. Soc. Ent. Fr. 1882, p. 500.

Stenous olivaceus (p. 47).

Chaudoir, in his revised monograph, is doubtfully inclined to consider this species as a variety of the South-American *S. metallicus*. The two are very closely allied, but appear to be as distinct as most others in this group.

STENOCREPIS (p. 47).

Stenocrepis chalcas (p. 47).

Stenocrepis chalcocrous, Chaudoir, Monogr. des Oodides, Ann. Soc. Ent. Fr. 1882, p. 487 (May 30, 1883).

POLYCHÆTUS (p. 47 ; to follow the genus *Stenocrepis*).

Polychætus, Chaudoir, Ann. Soc. Ent. Fr. 1882, p. 338.

Two species of this new genus are described by M. de Chaudoir, one Mexican and the other from Cayenne.

1. **Polychætus dejeani**.

Polychætus Dejeani, Chaudoir, l. c. p. 339.

Hab. MEXICO.

I have not seen this species, of which only a single specimen appears to be known in European collections.

ANATRICHIS (p. 47).

Anatrichis piceus (p. 47).

Oodiellus mexicanus, Chaudoir, Ann. Soc. Ent. Fr. 1882, p. 323 (*partim*).

If the specimens are named accurately in the Sallé collection, MM. Chaudoir and Sallé have mistaken for sexual characters the differences which separate the two species *A. piceus* and *A. alutaceus* (*antè*, p. 48), males only of the one and females of the other having been known to them. Mr. Champion, however, took in Guatemala an ample series of both sexes; and as these show no difference in the sculpture of the upper surface between males and females, I think there can be no doubt that *A. alutaceus* (= *O. mexicanus* ♀, Chaud.) is a distinct species from *O. mexicanus*. Whether the smoother species is the *Oodinus piceus* of Motschulsky or not is somewhat doubtful; M. de Chaudoir alludes to the probability of their identity, but prefers to reject Motschulsky's name.

This species and its allies, according to Chaudoir, are generically distinct from *Anatrichis* (Leconte), offering differences in the form of the ligula, paraglossæ, and maxillæ, organs which, however, vary in an unusual degree in the *Oodinae*.

If *Oodinus*, Motschulsky, be the same genus, as to which I think his description leaves no reasonable doubt, his name will have the priority over *Oodiellus* for the new genus.

DICÆLUS (p. 48).

Dicælus flohri (p. 49).

Dicælus lævipennis, Leconte, Ann. Lyc. N. Y. iv. p. 321; Col. Kansas, p. 3, t. 1. f. 1.

Dr. Horn, on his recent visit to England, brought from Philadelphia a specimen of *D. lævipennis*, Lec., for comparison with the types of *D. flohri*. The result was to show that they cannot be more than local varieties of one and the same species. *D. flohri* is slightly broader in form and has smoother elytra, the rows of punctures being obsolete, except in some examples near the suture.

D. lævipennis is found in Colorado and Utah.

ANISOTARSUS (p. 49).

5 (A). **Anisotarsus foveicollis**.

A. ocreato differt statura paullo minori et convexiori posticeque minus angustata. Oblongo-ovatus, ænescenti-niger; elytris ♂ viridi-æneis vel cupreis sat nitidis, ♀ cuprascenti-fuscis sericeo-opacis, partibus oris, antennis et pedibus fulvo-testaceis (antennis ab articulo tertio interdum fusco-maculatis); thorace transversim quadrato ante medium parum rotundato, postice vix angustato, lateribus fere rectis, angulis posticis

obtusis sed fere rectis (apicibus ipsis rotundatis), marginibus rufescentibus, fovea utrinque basali sat profunda, conspicua; elytris apice oblique sinuatis, dorso acute striato, interstitiis planis subtiliter et eleganter alutaceis, epipleuris interdum rufis.

Long. $3\frac{1}{2}$ – $4\frac{1}{2}$ lin. ♂ ♀.

Hab. GUATEMALA, Dueñas (*Champion*); PANAMA, Volcan de Chiriqui (*Champion*).

Very closely allied to *A. ocreatus*, but having a different aspect at first sight, owing to its brighter metallic colouring, at least in the male, and its rather smaller and narrower form with decidedly less elongated elytra. Guatemala examples are less typical than those from Chiriqui, and in corresponding measure approach the Mexican *A. ocreatus*.

5 (B). *Anisotarsus castaneus*.

A. ocreato affinis sed latius oblongus. Rufo-castaneus; elytris paullo obscurioribus, corpore subtus pallidiori; supra sericeo-nitens, elytris alutaceis; palpis, antennis pedibusque testaceis; thorace transverso-quadrato, paullo ante medium modice rotundato, postice minus sed longius quam antice angustato, angulis posticis obtusis, fovea basali utrinque conspicua lineari; elytris apice minus oblique sinuatis, dorso acute sed subtiliter striato, interstitiis planissimis. Menti sinu brevissime dentato.

Long. 4– $4\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Presidio (*Forrer*).

Relatively much shorter in form than *A. brevicollis* and *A. ocreatus*.

NOTIOBIA (p. 52).

1. *Notiobia chiriquensis*. (Tab. XIII. fig. 11.)

Notiobia concolor (antè, p. 53). (Nec *N. concolor*, Putzeys.)

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

The large series of the Chiriqui *Notiobia* allied to *N. concolor* and *N. jucunda* sent home by Mr. Champion since my first determination of the species show a constant difference in colour from the concolorous greenish *N. concolor*, the head and thorax being dark metallic green and the elytra brownish coppery. The form is also a little larger, being 12 millim., whilst *N. concolor* is only 10 millim. I have compared them with four examples of the true *N. concolor* from Colombia and Venezuela. *N. chiriquensis* is smaller than the other Colombian species *N. jucunda*, which measures 14 millim., and differs from it in the form of the thorax, which is much less transverse, less rounded at the sides, and less narrowed to the hind angles; the legs, besides, are palish tawny reddish, and not dark pitchy red as in *N. jucunda*.

Notiobia melæna (p. 54).

To the localities given add:—GUATEMALA, Balheu (*Champion*).

11 (A). **Notiobia umbrifera.**

N. umbratae simillima, sed differt striola scutellari multo breviori; ænea vel subaurato-ænea, interdum cuprascens, nitida; antennis basi (cæteris piceis), palpis pedibusque flavo-testaceis; oculis valde prominentibus; thorace lato, antice sat late rotundato-dilatato, postice sinuato angustato, angulis posticis rectis; elytris apice oblique sinuatis, umbra testacea fere ut in *N. umbrata*, versus apicem utrinque interstitia 5^m-9^m tegente; striola scutellari ad quartam longitudinem elytri desinente. ♀ elytris disco sicut in ♂ nitidis.

Long. 4-4½ lin.

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Upper Amazons.

There is scarcely any thing to distinguish this species from *N. umbrata* except the length of the scutellar striole, which is here only one half that of *N. umbrata*. The colour of the majority of the specimens is rather brighter, and the female has not the opaque patch on the disk of the elytra shown by *N. umbrata*.

15. **Notiobia** —.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

A single male example, apparently different from any of the foregoing.

HARPALUS (p. 56).

Harpalus mexicanus (p. 57).

To the localities given add:—Maravatio (*Flohr*).

8. **Harpalus** —.

Hab. MEXICO, Toluca (*Sallé*).

A single specimen in the Sallé collection.

9. **Harpalus** —.

Hab. MEXICO (*Sallé*).

A single specimen, named *H. marginicollis*, Chev., in the Sallé collection. It appears not to have been described, but is quite indeterminable, even its genus, as it wants the four anterior tarsi.

10. **Harpalus ellipsis.**

Harpalus ellipsis, Leconte, Ann. Lyceum N. York, v. p. 400.

Hab. NORTH AMERICA, Missouri, Louisiana.—MEXICO, Northern Sonora (*Morrison*).

SELENOPHORUS (p. 58).

Selenophorus æquinoctialis (p. 59).

To the Mexican localities given add:—Chihuahua (*Hepburn*).

8 (A). **Selenophorus subæneus.**

Selenophorus subæneus, Reiche, Rev. Zool. 1843, p. 141¹.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia¹.

The description above cited fits very well what I take to be small examples (8 millim.) of *S. callistichus*, Bates, of which Mr. Champion sent home two or three among a very large series of the larger form, the length of which varies little from 10 millim. The question of their specific distinction must at present remain doubtful; and I am besides not sure of the determination, Reiche's description being too brief and apparently made from a single example, as he says the colour is "ferrugineo-æneus," which can only apply in this genus to immature specimens.

9 (A). **Selenophorus multiporus.** (Tab. XIII. fig. 13.)

S. chiriquino affinis sed multo minor; thorace basi haud perspicue punctato, elytrorumque striis multo subtilioribus, punctis seriatis multo majoribus foveolatis. Læte cuprascenti-æneus, mandibulis rufis, antennarum articulo primo (cæteris fuscis), palpis apice pedibusque testaceo-flavis; thorace transverso, antice magis quam postice angustato, angulis anticis porrectis, angulis posticis obtusis sed distinctis, basi utrinque subtiliter coriaceo, fovea sat impressa lævi; elytris subtilissime striatis, interstitiis planis (prope apicem angustis et convexis), foveis seriatis magnis apud striam 2^m octo, striam 5^m decem, striam 7^m duodecim, a basi usque ad apicem continuatis.

Long. $2\frac{1}{2}$ lin.

Hab. PANAMA, Tolé (*Champion*).

The hindmost tarsi are long and slender, as in *S. seriatoporus* and allies. The three rows of elytral punctures are larger, more uniform, and more circular than in any other species known to me.

15 (A). **Selenophorus chryses.**

S. tarsali proxime affinis, sed magis elongatus, elytris præcipue relative longioribus, postice paullulum dilatatis; supra æneus, elytris purpurascenti-cupreis; antennis, palpis pedibusque rufo-testaceis; elytris sicut in *S. tarsali* acute et sat profunde striatis, prope apicem late sulcatis, interstitiis pallulum convexis.

Long. $4\frac{1}{2}$ – $4\frac{3}{4}$ lin. ♂ ♀.

Hab. GUATEMALA, near the city (*Champion*); NICARAGUA, Chontales (*Belt*); PANAMA, Bugaba, Volcan de Chiriqui, Tolé (*Champion*).

I have decided, after much hesitation, to separate this form from the *S. tarsalis* of Mexico, although it is connected with the steel-black dark-legged (with fulvous tarsi) type of that species by fine gradations. Thus Herr Höge collected at Las Vigas, with the typical form, examples with purple-coppery elytra, though far duller in colour than the Panama specimens of *S. chryses* and having pitchy-red legs; and also other examples with red legs and rather elongated elytra, although of the steel-black colour of the type. In Guatemala both forms occur, and in Costa Rica examples are found which partake of the characters of both forms. Notwithstanding these gradations, it is diffi-

cult to regard the more elongated and brilliant of the specimens found at Panama as no more than individual varieties of *S. tarsalis*.

Selenophorus tarsalis is very closely allied to *S. chalybeus*, Dej., and *S. vicinus*, Dej., from South Brazil. It differs, as Putzeys points out, in the thorax being more rounded on the sides, and also in the faint rugose punctuation of the elytral interstices being limited to the extreme margins and apex, instead of being spread over the marginal half of each elytron. But the thorax varies in form, being sometimes subcordate-quadrate (*i. e.* rotundate-dilated before the middle) and sometimes regularly arcuated (*i. e.* having its greatest width in the middle); the hind angles also vary in being more or less obtuse.

15 (B). **Selenophorus dives.** (Tab. XIII. fig. 12.)

Quam *S. chryses* adhuc magis elongatus, magis parallelogrammicus; thorace subcordato (antice conspicue rotundato), elytris splendide aurato-cupreis, striis vix impressis, punctulatis; capite thoraceque viridi-æneis; palpis, antennis et pedibus rufo-testaceis.

Long. 5 lin. ♂.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

A single example, very closely resembling the more elongate Panama specimens of *S. chryses*, except in the sculpture of the elytra.

15 (C). **Selenophorus affinis.**

Selenophorus affinis, Dej. Sp. Gén. v. p. 822¹; Putzeys, Stettin. ent. Zeit. 1878, p. 51².

Hab. PANAMA, Tolé (*Champion*).—SOUTH AMERICA, Colombia², Cayenne¹.

Agrees with Dejean's description; but as he drew it up from a single immature example, the determination remains doubtful. The few words added by Putzeys from a Colombian specimen also agree as far as they go. The eight specimens from Tolé are certainly distinct from *S. tarsalis* and *S. chryses*, although very closely allied to them, the colour being always brown with a highly polished surface tinged with green and dark coppery; the strongly rugulose-punctate sides of the elytra (covering the two marginal interstices) is also a constant character.

16 (A). **Selenophorus tubericauda.**

Quoad formam *Anisotarso ocreato* et *calathis* (thorace angustiori excepto) similis; nigro-nitidus, elytris olivaceo-nigris subsericeis; palpis, antennis pedibusque (interdum elytrorum epipleuris) fulvo-piceis; foveis frontalibus obsoletis; thorace transverso, lateribus fere regulariter arcuatis, angulis posticis obtusis rotundatis, foveis basalibus vagis haud punctatis; elytris relative elongatis, apice vix sinuatis, acute striatis, interstitiis planissimis (prope apicem paullulum convexioribus), seriebus punctorum conspicuis juxta strias sitis, punctis numerosis; tarsis posticis elongatis; prosterno apice haud marginato; abdomine olivaceo.

♂ segmento ventrali apicali medio tuberibus duobus modice elevatis.

Long. 4½ lin. ♂.

Hab. MEXICO, near the city (*Sallé*), Jalapa (*Höge*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, July 1884.

2 nn

16 (B). **Selenophorus suavis.**

S. tubericaudæ affinis; minor, magis oblongus, niger; elytris et corpore subtus olivaceo-æneis; palpis, labro, antennis pedibusque testaceo-fulvis; ventris segmentorum marginibus posticis rufis; thorace latiore, antice rotundato sed postice subrecte sed parum angustato, angulis posticis obtusis, apice valde rotundatis, basi tota (in foveis grossius) punctulata; elytris apice vix sinuatis, acute striatis, interstitiis planis, seriebus tribus punctorum conspicuis sed late interruptis; tarsi postici elongatis.

Var. Elytris obscure purpureis.

Long. $3\frac{1}{4}$ – $3\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Las Vigas, Oaxaca (*Höge*).

Allied to *S. assimilis* and *S. gagatinus*.

16 (C). **Selenophorus irinus.**

Harpalus irinus, Reiche, Rev. Zool. 1843, p. 178¹.

Selenophorus irinus, Putzeys, Stett. ent. Zeit. 1878, p. 63².

Hab. PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia^{1 2}.

16 (D). **Selenophorus** —.

Hab. PANAMA, Bugaba (*Champion*).

A single immature example of what appears to be a distinct species from any here recorded.

Selenophorus valgus (p. 62).

To the localities given add:—PANAMA, Peña Blanca (*Champion*).

One example, differing from the Costa-Rica type specimen in the rather more distinctly impressed and linear basal foveæ of the thorax, in this respect approaching *S. crassiusculus*.

22. **Selenophorus hepburni.**

S. crassiusculo et *S. valgo* proxime affinis; tibiis intermediis ♂ sicut in *Discoderi* ♂ curvatis, in hoc specie valde quinque denticulatis. Oblongus, fusco-æneus cuprascens, subnitidus; labro, palpis, antennis pedibusque fulvo-testaceis; thoracis lateribus quam in *S. crassiusculo* et *S. valgo* postice magis explanatis; elytris acute striatis, interstitiis planis, punctis seriatis in striis alternis conspicuis.

Long. $5\frac{1}{2}$ lin. ♂ ♀.

Hab. MEXICO, Pinos Altos in Chihuahua (*Hepburn*).

Belongs to the same group of *Selenophorus* as *S. crassiusculus* and *S. valgus*, which differ from *Discoderus* solely in the four anterior tarsi of the male having squamulose soles, the first of the four joints, however, being naked. It cannot be *S. crassipes* (Putz.), which is described as being shining black, and it differs from *S. valgus*, which it resembles in size and colour, by the yellow legs. The curved middle tibiæ of the male *Discoderi* have frequently along their inner side a row of short broad teeth, numerous in *D. impotens*, and conspicuous in *D. piger*, but obsolete in *D. difformipes* and *D. distortus*; here they form a row of five and are well developed.

DISCODERUS (p. 62).

Discoderus distortus (p. 63).

On re-examining examples of this species I find the male has one setiferous puncture only on the ventral segment on each side of the anus. A specimen which I think likely to be the female has two such punctures, and has broader and less angularly curved middle tibiæ.

5. Discoderus acinopoides.

Quam *D. distortus* brevior et latior, præcipue capite et thorace latioribus fere sicut in *D. acinopo*, hoc (♀?) quadrato mox pone angulos anticos leviter dilatato deinde usque ad basin subrecte angustato, margine laterali postice nullo modo reflexo, fovea basali parva spatioque inter foveam et angulum convexo; nigro-cupreus, elytris sicut in *D. distorto* cupreis nitidis; pedibus antennisque piceis, harum articulis 1^o-2^m rufis.

♀? Tibiis intermediis latis et brevibus, modice arcuatis; punctis setiferis prope anum utrinque duobus.

Long. 7 lin.

Hab. MEXICO (*coll. Bates*).

I omitted this species, which I have had for many years in my collection, in first dealing with this genus, in the doubt whether it might not be the female of *D. distortus*. Since then, having received a long series of an allied species from Arizona, in which I find a sexual distinction in the number of anal setiferous punctures, I have been enabled to pair *D. distortus* with some degree of probability, and am now convinced that the female which I now call *D. acinopoides* belongs to a distinct species. It is singular, however, that in *D. piger* both sexes seem to have two anal punctures on each side. In *D. difformipes* all my specimens have one only, but they are evidently all males.

6. Discoderus melanthus.

Cæteris speciebus relative brevior thoraceque adhuc magis orbiculari. Niger, corpore subtus medio castaneo; labro, palpis et antennis fulvo-testaceis; epistomate medio bifoveolato; thorace relative magno, convexo, postice (♂) paullo magis quam antice angustato, lateribus valde arcuatis haud explanatis, angulis posticis late rotundatis, basi media rugulosa, fovea utrinque haud profunda; elytris valde convexis, basi et humeris rectis, valde striatis (versus apicem sulcatis), interstitiis convexis.

♂. Tibiæ intermediæ parum arcuatæ apice intus producto; ano utrinque puncto setifero unico.

Long. 5½ lin.

Hab. MEXICO, Ventanas (*Forrer*).

7. Discoderus pulvinatus.

Elongatus, angustus, subcylindricus, supra cuprascenti-æneus; palpis et antennis fulvo-testaceis (his interdum versus apicem piceis), pedibus plus minusque rufo-piceis; thorace quadrato, postice gradatim angustato, lateribus perparum arcuatis, margine postice haud explanato, fovea basali lata, rotunda, lævi; basi depressa, angulis posticis rotundatis; elytris striatis, interstitiis modice convexis (prope apicem angustioribus et altioribus); tibiis intermediis (♂?) leviter arcuatis, apice intus productis.

Long. 3-3½ lin.

Hab. MEXICO, Puebla, Cordova (*Sallé*).

Differs in the form of the thorax from *D. parallelus* (Lec.) and *D. amblyderus*.

8. **Discoderus** —.

Hab. MEXICO, Jalapa (*Höge*).

One example only, too imperfect to describe, or to decide whether it really belongs to this genus.

9. **Discoderus impotens**.

Harpalus impotens, Leconte, Journ. Acad. Sci. Phil. 1858, p. 14¹.

Hab. NORTH AMERICA, El Paso¹.—MEXICO, Northern Sonora (*Morrison*).

10. **Discoderus** — ?

Hab. NORTH AMERICA, Arizona.—MEXICO, Northern Sonora (*Morrison*).

A large species, distinct from the Mexican species described.

GYNANDROPUS (p. 65).

3 (A). **Gynandropus lævicollis**.

G. mexicano relative angustior sed haud longior, nigro-æneus, elytris subcyaneis; palpis, antennis basi pedibusque fulvo-testaceis, labro antennarumque articulis apicalibus fusciscenti-rufis; foveis frontalibus rotundatis sat profundis; thorace quam in *G. hylaci* multo breviori lateribus valde rotundatis, postice paullo magis quam antice angustato, angulis posticis valde obtusis fere rotundatis, basi utrinque lævissima, fovea utrinque sat profunda; elytris sine striola scutellari ibique fovea ocellata.

Long. 2½ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).—SOUTH AMERICA, Colombia (*coll. Bates*).

Agrees with the description of *G. agonoides*, Putz., except in colour (Putzeys says, "brun de poix, un peu plus clair sur les elytres") and in the form of the thorax, which he says has the posterior angles completely rounded &c. Agrees better, as far as colour is concerned, with the Venezuelan *G. cyclogonus* of the same author; but in that species the sides of the base are strongly punctured. Unfortunately Putzeys had before him only one example of each species.

3 (B). **Gynandropus** —.

Hab. MEXICO, San Blas Jalisco (*Forrer*).

A single female example in bad condition.

AMBLYGNATHUS (p. 66).

2. **Amblygnathus nigripennis**.

A. ruficollis (Putz.) quoad colores simillimus, sed minor et relative multo brevior; rufus, meso- metasternoque, ventre et elytris nigerrimis opalescentibus; mandibulis apice antennisque (articulis 1°-2^m et 3° basi rufis exceptis) nigris; fronte lata, planata, foveis punctiformibus; thorace sicut in *A. ruficollis* transverso,

cordato-quadrato, lævi, angulis posticis rectis; elytris acute striatis, interstitiis subconvexis versus apicem paullo altioribus, punctis minutis plurimis vix conspicuis in striis 2^a, 5^a et 7^a sitis.

Long. 2½ lin. ♂ ♀.

Hab. PANAMA (*coll. Bates*).—SOUTH AMERICA, Upper Amazons.

BRADYCELLUS (p. 71).

Bradycellus circumdatus (p. 72).

To the localities given add:—PANAMA, Volcan de Chiriqui (*Champion*).

Bradycellus limbicollis (p. 73).

Var. Capite ferrugineo, thorace rufo-testaceo antice et postice infuscato.

Hab. PANAMA, David (*Champion*).

One example.

Bradycellus nigrellus (p. 73).

To the localities given add:—PANAMA, Volcan de Chiriqui, Bugaba.

7. **Bradycellus congener.**

Geobenus congener, Leconte, Ann. Lyc. N. York, vol. iv. p. 407¹.

Hab. NORTH AMERICA, Rocky Mountains¹.—MEXICO, Northern Sonora (*Morrison*).

Labelled *B. congener* in Morrison's collection, but I doubt whether it really belongs to that species.

POLPOCHILA (p. 74).

Polpochila mexicana (p. 75).

Pogonodaptus piceus, Horn, Trans. Amer. Ent. Soc. ix. p. 179, t. iv. fig. 8 (1881)¹.

To the localities given add:—NORTH AMERICA, Texas¹.

Differs from the other species of the genus in several important points, such as the grooved forehead and the absence of scutellar striole. The new genus proposed for it by Dr. Horn ought to be adopted. Its affinities appear to me much nearer to *Polpochila* than to *Daptus*, with which Dr. Horn compares it.

AMARA (p. 79).

4. **Amara** — ?

Hab. MEXICO, Northern Sonora (*Morrison*).

Probably a *Celia*, species indeterminable.

ITHYTOLUS (p. 84; to follow the genus *Ophryogaster*).

Gen. *Cyrtolao* quodammodo affinis. Mandibulæ elongatæ, angustæ fere rectæ. Palpi (præcipue articuli penultimi) valde elongati. Antennæ breves, articulis 4^o–10^m compressis, ovatis. Elytra prope apicem

profundissime sinuata. Pedes elongati, tibiæ anticæ apice perparum dilatatae, tarsi sat robusti plantis velutino-pilosis, articulo quarto cæteris latitudine æquali, emarginato, angulo exteriori paullo longiori. Mesothoracis episterna brevia.

A remarkable genus, partaking of the characters of both the subfamilies Pterostichinæ and Anchomeninæ. Judging from the form of the parts of the mouth, the pubescent soles of the tarsi and the emargination of the broad penultimate joints, I had included one of the species (*I. lobipennis*) in the genus *Cyrtolaus*; but the sharp ridge proceeding (underneath) from the external margin of the elytra near the apex (causing an apparent break in the margin just below the end of the epipleura) is a feature characteristic of the Pterostichinæ, and the genus must therefore be referred to that subfamily, in which it stands alone in the *Colpodes*-like form and clothing of the tarsi. The sharp submarginal ridge underneath the elytra exists also in *Colpodes* and *Onypterygia*, but it becomes obsolete before reaching the apical margin, instead of rising higher there and forming, with the margin itself, a narrow groove for the interlocking of the raised edge of the abdomen, a structure which is universal in the Pterostichinæ.

The three examples of the genus I have examined appear to be females; I do not, therefore, know the form of the anterior tarsi of the male.

1. *Ithytolus lobipennis*.

Cyrtolaus lobipennis, antè, p. 99.

2. *Ithytolus anomalus*. (Tab. XIII. fig. 15.)

Elongato-subovatus, nigro-piceus; palpis, labro et antennis fulvo-rufis, pedibus castaneis; oculis minime prominentibus; thorace elongato, medio rotundato, antice recte postice sinuatim angustato, angulis posticis acutis, margine laterali late depresso postice elevato, basi utrinque medio sulco elongato lineari; elytris convexis, basi quam thoracis basi multo latiori, humeris dentatis, apice profundissime sinuatis, angulo suturali breviter dentato, dorso profunde striato, interstitiis modice convexis tertio unipunctato, stria 1^a basi cum stria 2^a conjuncta, striola scutellari obsoleta.

Long. $5\frac{1}{4}$ lin.

Hab. MEXICO (*Sallé*), Orizaba (*coll. Bates*).

The totally different form of the thorax at once distinguishes this species from *I. lobipennis*.

PÆCILUS (p. 84).

1 (A). *Pæcilus* — ?

Hab. MEXICO, Ventanas (*Forrer*).

A single female, possibly a variety of *P. mexicanus*, but having a more rounded thorax.

LOXANDRUS (p. 86).

4. *Loxandrus sculptilis*. (Tab. XIII. fig. 14.)

L. infimo affinis. Oblongo-parallelogrammicus parum connexus, nigro-piceus; elytris plus minusve opacis; palpis, antennis basi (cæteris fusciscenti-rufis) pedibusque fulvo-testaceis (individuis immaturis thorace

elytrorumque marginibus fulvo-testaceis); foveis frontalibus punctiformibus profundis; thorace quadrato, versus apicem rotundato-angustato, postice minus angustato nec sinuato, angulis posticis obtusis, basi sparsim subgrosse punctata, foveis linearibus; elytris apice obtuse conjunctim rotundatis, vix sinuatis, eleganter punctulato-crenato-striatis, interstitiis planissimis; tarsis posticis bisulcatis.

Long. 3-3½ lin. ♂ ♀.

Hab. MEXICO, Cordova, Yolos (*Sallé*), Las Vigas (*Höge*), Acambaro (*Flohr*); PANAMA Tolé (*Champion*).

This species is more closely allied to *L. opaculus* from the Amazons than to the Mexican *L. infimus*. The elytra have the same dull (often opaque even in the male) lustreless surface in both species; but *L. opaculus* differs conspicuously in the sides of the thorax being sinuated before the hind angles, and in the latter being slightly salient and rectangular as in *L. infimus*.

CALATHUS (p. 91).

Calathus ovipennis (p. 91).

This species differs from the typical *Calathi* in the prosternal process being without marginal rim at the apex; in which it agrees with the genus *Pristodactyla*.

3. **Calathus fuscus.**

Calathus fuscus, Fabricius, Syst. El. i. p. 191; Dej. Sp. Gén. Col. iii. p. 71.

Hab. MEXICO (*Sallé*).

One example, without special locality, in the Sallé collection belongs to this common European species.

4. **Calathus** — ?

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

One example, so nearly resembling the North-American *C. gregarius* (Say) that I hesitate to consider it as more than a slight southern variety of that species; it has the same peculiar elongate parallel-sided thorax, the margins of which, however, are distinctly less explanate-reflexed. The colour is the same, except that the thorax is red.

PLATYNUS (p. 91).

4. **Platynus chihuahuae**, n. sp.

Elongatus, niger, subopacus; antennis tarsisque rufo-piceis; capite gracile ovato, oculis haud prominentibus; thorace ovato angulis posticis omnino rotundatis, anticis sat productis; elytris elongato-ovatis, basi utrinque valde sinuatis humerisque acutis, margine laterali explanato-elevato, apice oblique sinuatis, dorso sat convexo, acute striatis, interstitiis alutaceis planis, 3° tripunctato.

Long. 5½-6½ lin. ♂ ♀.

Hab. MEXICO, Chihuahua (*Hepburn*).

Resembles species of *Colpodes* allied to *C. biovatus*, but the fourth tarsal joint, even

in the fore feet, is not more than emarginate; and the species belongs therefore to the *Anchomeninae* group, the very short and broad metathoracic episterna bringing it within the genus *Platynus*. The head is more regularly ovate even than in *Platynus complanatus*; the thorax is that of a slender *Agonum*.

ANCHOMENUS (p. 93).

1 (A). *Anchomenus brunneomarginatus*.

Anchomenus brunneomarginatus, Mannerheim, Bull. Mosc. 1843, ii. p. 196¹.

Hab. NORTH AMERICA, California¹.—MEXICO, Northern Sonora (*Morrison*).

1 (B). *Anchomenus charmis*.

A. extensicollis var. *elegantulo* similis, sed latior, præcipue thorace minus elongato fere sicut in *A. æneolo* (Leconte) elytrisque grossius striatis, interstitiis convexis; supra sat nitidus, capite thoraceque cyaneis, elytris cuprascenti-nigris; antennarum scapo, palpis pedibusque (femoribus a medio ad apicem nigro-fuscis exceptis) rufo-piceis; elytris interstitio tertio punctis 6 grossis; tarsis posticis bisulcatis sulcis dorsalibus. Long. 4½ lin. ♀.

Hab. MEXICO, near the city (*Flohr*). One example only.

1 (C). *Anchomenus bicoloratus*.

Platynus bicoloratus, Harold & Gemminger, Catal. Col. i. p. 368.

Platynus bicolor, Leconte, Proc. Acad. Phil. 1854, p. 43¹ (nom. præoccup.).

Hab. NORTH AMERICA, California¹.—MEXICO, Northern Sonora (*Morrison*).

Anchomenus extensicollis (p. 93).

To the localities given add:—Northern Sonora (*Morrison*).

Morrison's numerous examples belong to a form quite distinct from the Central Mexican one mentioned at p. 93. They are of a delicate violaceous blue, with the head and sides of the thorax tending to brassy green; legs and 1-3 or 1-4 joints of the antennæ testaceous red.

1 (D). *Anchomenus decorus*.

Feronia decora, Say, Trans. Am. Phil. Soc. ii. p. 53.

Anchomenus decorus, Dejean, Sp. Gen. Col. iii. p. 115; Leconte, Ann. Lyceum N. Y. iv. p. 223¹.

Hab. NORTH AMERICA, generally distributed in the United States¹.—MEXICO, Northern Sonora (*Morrison*).

1 (E). *Anchomenus texanus*.

Platynus texanus, Leconte, Proc. Am. Phil. Soc. 1878, p. 374¹.

Hab. NORTH AMERICA, Texas¹.—MEXICO, Northern Sonora (*Morrison*), Mexico city (*Flohr*).

Anchomenus cyanopis (p. 94).

To the localities given add:—Northern Sonora (*Morrison*).

Morrison's numerous examples are of a clearer blue than those from Mexico city. He labelled them erroneously as *Platynus funebris*, Lec.

2 (A). **Anchomenus xanthocnemis**.

A. maesto affinis, sed thorace magis quadrato, transverso; supra paullo lætius æneus, nitidus; palpis, antennis et pedibus nigro-piceis, femoribus (apice infuscatis exceptis) trochanteribusque fulvo-rufis; thorace transversim quadrato, postice perparum angustato, lateribus vix rotundatis, angulis posticis obtusissimis fere rotundatis, margine haud vel vix perspicue elevato, fovea basali lata, lævi; elytris punctato-striatis acute insculptis, interstitiis sat planis, tertio tripunctato, apice sat profunde et oblique sinuatis; tarsi 4 posticis lateraliter sulcatis, supra lævibus nitidis.

Long. 4 lin. ♀.

Hab. MEXICO (*Sallé*). One example only.

Belongs quite to the boreal type of the genus *Anchomenus* (§ *Agonum*); but it differs from all Old-World and North-American species known to me.

4 (A). **Anchomenus cyclifer**.

A. anthracino (Dej.) affinis; differt colore toto nigro subnitido, thorace magis circulari, elytris profundius striatis interstitiis paullo convexis; antennarum scapo obscure piceo.

Long. 5 lin. ♀.

Hab. MEXICO, near the city (*Flohr*).

A. anthracinus varies considerably in the outline of the thorax, which is more or less rounded on the sides and sometimes nearly circular; there is, however, always conspicuous an elongate fovea on each side of the base, which exists also in *A. cyclifer*. The number of punctures on the third elytral interstice also varies from three to five, and the striæ at the apex differ much in their mode of termination; but the prevailing form is the continuation of the seventh and eighth to near the sutural angle, which is also the character of *A. cyclifer*. The new species differs, nevertheless, conspicuously in the deeper striæ and more convex interstices.

6 (A). **Anchomenus placidus**.

Feronia placida, Say, Trans. Am. Phil. Soc. ii. p. 43 (1823).

Agonum morosum, Dej. Sp. Gen. Col. iii. p. 145 (1828).

Platynus placidus, Leconte, Bull. Brooklyn Ent. Soc. ii. pp. 49, 57.

Hab. NORTH AMERICA.—MEXICO, Northern Sonora (*Morrison*).

13. **Anchomenus ovatulus**, n. sp.

A. dominicensi primo intuitu similis, latius ovatus elytris subtilius striatis. Nigro-piceus, nitidus, thorace castaneo, elytris olivaceis, antennis et pedibus testaceo-rufis; capite ovato, oculis minus prominentibus; thorace late ovato, fere orbiculari, angulis posticis omnino rotundatis, anticis vix productis, margine laterali æqualiter sat late explanato, lævi; elytris breviter oblongo-ovatis apice perparum sinuatis, plica basali arcuata integra, subtiliter striatis, interstitiis planis, tertio tripunctato; metathoracis episternis

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, July 1884.

200

elongatis, sed latius et postice minus angustatis quam in *Agonis*; tarsi tenuibus articulo 4° angusto emarginato, 4 posticis bisulcatis.

Long. $3\frac{1}{3}$ lin. ♀.

Hab. MEXICO, Chihuahua (*Hepburn*).

An *Anchomenus* belonging to the section *Agonum*, but with rather broader and slightly less elongated metathoracic episterna. The hind angles of the thorax are perfectly rounded off. Except for the explanated margins the thorax (as also the head) resembles that of *A. maculicollis* (Mannerh.), but the species has the shorter ovate form of *A. dominicensis*.

14. *Anchomenus* — ?

Hab. MEXICO, Orizaba (*Sallé*).

A small species, doubtfully belonging to the genus.

GLYPTOLENUS (p. 98).

4. *Glyptolenus latitarsis*. (Tab. XIII. fig. 19.)

Castaneus, nitidus; capite castaneo-rufo, elytris iridescentibus, antennis, partibus oris pedibusque testaceo-fulvis; capite ovato sulcis frontalibus profundissimis extus versus oculi marginem continuatis; thorace subquadrato, medio rotundato, versus basin subsinuatum modice angustato, angulis posticis obtusis, fere rectis; elytris brevibus, oblongo-ovatis, convexis, ad humeros latis, apice vix sinuatis, dorso punctato-striatis, interstitiis convexis, tertio 3-punctato.

♂ tarsi intermediis brevibus et dilatatis, plantis hirsutis nec squamosis, articulis 1°-3^m (sicut in tarsi posterioribus) plurisulcatis.

Long. $3\frac{1}{2}$ lin. ♂.

Hab. PANAMA, Boquete (*Champion*). One example only.

The facies of this species is peculiar, and the dilatation of the middle tarsi in the male rather more pronounced than in *G. rugicollis* and *G. ater*, in which it seems to exist in both sexes.

5. *Glyptolenus janthinus*.

Anchomenus janthinus, Dejean, Sp. Gén. Col. v. p. 721¹.

Colpodes janthinus, Chaudoir, Ann. Soc. Ent. Fr. 1859, p. 357; id. ibid. 1878, p. 381².

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia¹, Amazons, South Brazil^{1 2}.

COLPODES (p. 100).

Colpodes stricticollis (p. 102).

To the localities given add:—COSTA RICA (*Van Patten*).

8 (A). *Colpodes nyctimus*.

C. transfugæ (Chaud.) affinis et similis; differt elytris profunde et acute striatis, interstitiis convexis; sat convexus, nigerrimus, nitidus; palpis, antennis tarsisque rufescentibus; palpis apice fusiformibus parum

acuminatis; fronte convexa foveis duabus rotundis impressa; oculis parum prominentibus, collo sat crasso transversim depresso; thorace fere sicut in *C. transfuga*, subcordato, antice et medio rotundato, ante basin valde sinuato-angustato, angulis posticis paullo productis acutis sed basi juxta angulos obliquato, basi utrinque fovea profunda, brevi, marginibus angustis reflexis; elytris ovatis, convexis, utrinque punctis tribus discoidalibus parvis sed distinctis; tarsorum articulo 4^o lato sat valde emarginato, posteriorum 4 articulis 1^o-3^m bisulcatis, sulcis fere dorsalibus.

Long. $6\frac{1}{2}$ lin.

Hab. MEXICO, Tenancingo (*Flohr*).

A handsome ebony-black species, with deeply striated, almost sulcated elytra. The usual dorsal punctures are much smaller than in *C. transfuga*, and situated in or close to the striæ.

9 (A). *Colpodes minimus*. (Tab. XIII. fig. 17.)

C. nugaci (*neglecto*, Chaud.) affinis, sed differt thorace multo latiore angulisque posticis obtusissimis fere rotundatis. Æneo-niger; palpis, antennis pedibusque (interdum epipleuris) piceo-fulvis; capite sat late ovato, oculis parum prominentibus; antennis relative curtis, robustis; palpis apice angustatis, subacuminatis; thorace subovato postice magis quam antice angustato, angulis posticis fere rotundatis; elytris sat grosse striatis, interstitiis paullo convexis, 3^o tripunctato, apice oblique nec profunde sinuatis; metathoracis episternis brevibus et latis; tarsorum articulo 4^o lato, emarginato.

Long. $3\frac{1}{6}$ lin.

Hab. MEXICO, Jacale (*Sallé*).

Belongs to the same group as *C. mæstus*, and similar at first sight to *C. nugax* and allies. It differs from all these in the form of the thorax, which has very obtuse, almost obliterated, hind angles.

11 (A). *Colpodes petilus*.

C. conciso (Bates = *anguloso*, Chaud.) proxime affinis et similis; differt statura majore, thorace præcipue latiore, latius cordato, angulis anticis productis, acutis, postice valde sinuato-angustato, angulis posticis acutis, margine laterali sat late ab apice usque ad basin explanato-reflexo, rufescenti; palpis, labro, antennis pedibusque rufis.

Long. $3\frac{2}{3}$ lin. ($7\frac{1}{2}$ millim.).

Hab. MEXICO, Las Vigas (*Höge*).

C. concisus, *C. suffectus*, and *C. petilus* are so closely allied that one is tempted to consider them as varieties only of one and the same species. They are of the same pitchy-brown colour (slightly æneous on the elytra), with pale tawny-red palpi, antennæ, and legs; similar oval head (rather shorter than in *C. nugax* and *simplicior* and fuller behind the eyes) and similar ovate elytra, with fine striæ and perfectly flat interstices. But the differences in the outline of the thorax are too great for mere varieties, and are such as we are accustomed to find existing between allied species in this genus; and notwithstanding that the thorax varies a little in each supposed species, being a little broader or narrower, with the hind angles more or less acute, it seems better to distinguish the three prevailing forms by separate specific names.

13 (A). *Colpodes eudemus*. (Tab. XIII. fig. 16.)

C. agili quoad formam et colores similis, sed differt metathoracis episternis brevioribus et postice multo latioribus. Elongato-ovatus, subdepressus, *C. agili* paullo latior, nigro-piceus; elytris viridi-auratis, politis; palpis, antennis, pedibus marginibusque thoracis et elytrorum testaceo-fulvis; capite ovato, collo supra depresso, oculis modice prominentibus; thorace quam in *C. agili* magis quadrato, postice minus angustato vix sinuato, angulis rectis, margine laterali sat late explanato-reflexo; elytris relative curtis, apice sat profunde et oblique sinuatis, singulatim productis, apice obtuse rotundatis, dorso acute subpunctulato-striatis, striis prope apicem profundioribus, margine laterali explanato-reflexo; disco tripunctato; tarsis posticis utrinque sulcatis, articulo 4° emarginato, tarsorum 4 anteriorum articulo 4° profundius emarginato, angulo exteriori producto, articulo 5° haud ciliato.

Long. $3\frac{1}{2}$ lin.

Hab. PANAMA, Peña Blanca (*Champion*).

Though belonging to a different section, resembles *C. agilis* in the shorter and broader form of the metathoracic episterna, which, however, are not so short as in *C. nugax* (*neglectus*, Chaud.), to which species it is otherwise allied.

41 (A). *Colpodes epilissus*.

C. metallico affinis, sed metathoracis episternis multo latioribus; quoad formam et colores *C. rutilanti* similior, sed episternis longioribus. Elongato-ovatus, sat convexus, niger, nitidus; elytris purpureo-cupreis, lævissimis; oculis modice convexus; thorace fere sicut in *C. metallico*, sed latiori, medio rotundato, antice usque ad collum angustato, post medium breviter sinuato-angustato, angulis posticis acutis; elytris fere sicut in *C. rutilante* ovatis, apud humeros paullo minus obliquatis, apice singulatim subtriangulariter productis, dorso fere lævi, striis subobsoletis sed punctis discoidalibus 3 magnis; punctis marginalibus magnis ocellatis cum alteris parvis versus apicem intermixtis; tarsis posticis bisulcatis, articulo 4° anguste bilobato, 4 posticis lobo exteriori elongato.

Long. $4\frac{1}{4}$ lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

According to the length of the metathoracic episterna this species would be placed in Section II. ("Episterna postica latitudine parum longiora") of Chaudoir's Monograph. It bears some resemblance, in fact, to some species in that section, such as *C. rutilans*, *C. grandicollis*, &c., but it differs from them in the three discoidal punctures of the elytra being large and conspicuous, and in the hind angles of the thorax being produced. In these characters it more nearly resembles the species allied to *C. metallicus*, in which, however, the metathoracic episterna are long and much narrowed behind. The striation of the elytra varies; in some examples there are distinct rows of small punctures (not impressed in striæ), but in others the elytra are almost as smooth as in *C. rutilans*. The species appears not to have been described by Chaudoir.

57 (A). *Colpodes lucilius*.

Elongatus, gracilis, cyaneo-niger, politus; elytris læte viridi-cæruleis, splendidis; thorace angusto, elongato, lateribus parum rotundatis, postice vix angustato, angulis posticis obtusissimis fere rotundatis, margine laterali angusto, dorso subtiliter transversim striguloso; elytris subtiliter sed acute striatis versus basin lateraque posteriora areis depressis, apice oblique valde sinuatis, singulatim sat productis, interstitiis planissimis, 3 conspicue tripunctato; antennis fuscis, articulis 3 basalibus rufis; tibiis tarsisque obscure

piceo-rufis; pedibus gracilibus; tarsorum omnium articulo 4° emarginato, posteriorum articulo 5° ciliato, articulis 1°-3^m bisulcatis; metathoracis episternis elongatis, angustis.

Long. 5 lin. ♀.

Hab. MEXICO, Cordova (*Sallé*). One example.

Resembles *C. cæruleus* in tarsal structure and in form, excepting that the elytra are less oval, or more oblong and broader, and the antennæ relatively much shorter. The colour of the elytra is a more brilliant greenish blue, and the thorax, though very similar in its ovate outline, has much narrower lateral margins. It was named *C. chadoiri* (Coq.) in the Sallé collection, evidently by mistake, as that species is smaller, and has produced hind angles to the thorax, besides being of dark shining bronze colour.

94 (A). *Colpodes cleanthes*.

C. atrato (Chaud.) affinis; differt capite minori elytris cuprascenti-æneis, nitidis etc. Parum convexus, nigropiceus, nitidus; antennis, palpis, pedibus margineque thoracis rufioribus; thorace fere sicut in *C. atrato* quadrato-cordato, angulis posticis fere rectis, margine laterali explanato-reflexo rufo; elytris æneis certo situ cupreo-micantibus, parum convexis, apice sat profunde sinuatis, apud suturam parum productis, apice ipso subtruncatis, dorso punctulato-striatis, interstitiis usque ad apicem planissimis, punctis 3 dorsalibus sat conspicuis; tarsorum omnium articulo 4° emarginato, angulo exteriori paullo elongato.

Long. 4 lin.

Hab. COSTA RICA (*Van Patten*).

Of similar form to *C. atratus*, but head smaller and coloration very different. Still more nearly allied to *C. zunilensis*, with which it accords in colour, but not in the form of the thorax, the latter being much broader and with more produced hind angles.

96 (A). *Colpodes viridans*.

C. cyanonoto et *C. chontalensi* proxime affinis, sed gracilior, thorace præcipue angustiore et multo minus rotundato; coloreque differt, elytris saturate viridi-æneis, politissimis. Gracilius oblongo-ovatus, subtus nigrochalybeus, capite thoraceque nigris viridi-æneo tinctis, elytris viridi-æneis; thorace subquadrato, antice multo magis quam postice angustato, medio parum rotundato, lateribus ante basin sinuatis, angulis posticis exstantibus acutis; elytris subtiliter punctulato-striatis, interstitiis usque ad apicem planissimis, punctis tribus discoidalibus conspicuis, apice singulatim subtriangulariter productis; tarsi sicut in *C. cyanonoto* et affinibus.

Long. 5 lin.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

A distinct species of the *C. cyanonotus* group, distinguished by its slender form (more slender than *C. cyanellus*) and the scarcely arcuated sides of the thorax, the form of the latter otherwise being nearly the same as in *C. cyanonotus*. The colour is metallic throughout above and beneath, and the elytra are greener in tint than in *C. chontalensis* (which is bluish green), highly polished, and with brassy, almost golden, reflections posteriorly.

Colpodes cyanostolus (p. 122).

To the localities given add:—PANAMA, Bugaba (*Champion*).

Colpodes princeps (p. 124).

To the localities given add:—PANAMA, Bugaba (*Champion*).

Colpodes chrysopterus (p. 124).

To the localities given add:—PANAMA, Bugaba (*Champion*).

107 (A). **Colpodes rufulus**. (Tab. XIII. fig. 18.)

C. bicolori (Chaud.) proxime affinis, sed differt statura minori, thorace multo breviori elytrisque violaceo-nigris rufo translucentibus, basi et marginibus rufis. Omnino testaceo-rufus, elytris violaceo-nigris exceptis; thorace transverso, medio subangulatim dilatato, postice haud magis quam antice angustato, angulis posticis obtusis, lateribus ante angula haud sinuatis; elytris profunde striatis, interstitiis sat convexis.

Long. $3\frac{2}{3}$ lin.

Hab. GUATEMALA, Tocooy (*Champion*).

One example only.

135 (A). **Colpodes** —.

Hab. MEXICO, Chiapas (*Sallé*).

ONYPTERYGIA (p. 130).

11 (A). **Onypterygia valdestriata**, n. sp.

O. cyaneae affinis, sed differt thorace fere quadrato elytrisque acute et forte striato-punctatis. Caput et thorax subcyaneo-viridia, elytris caeruleo-violaceis nitidis nec alutaceis; antennis piceo-nigris, articulis a 3° basi rufis; thorace relative angusto, lateribus parum rotundatis angulis posticis rectis; elytris apice oblique sinuatis, versus suturam rotundatis.

Long. 5 lin. ♂.

Hab. MEXICO, Chihuahua (*Hepburn*).

One example only.

17. **Onypterygia rubida**.

O. famini proxime affinis; minor, rufo-testacea; elytris viridi-æneis rufo-translucentibus; capite convexo, collo depresso; thorace subovato postice paullo et recte angustato, angulis anticis depressis valde rotundatis, posticis obtusis nullo modo exstantibus, margine laterali anguste explanato-reflexo, basi fovea lata utrinque lævi; elytris apice singulatim minus productis, obtuse rotundatis, punctulato-striatis, interstitiis convexis; unguibus brevius 5-denticulatis.

Long. 4 lin. ♂.

Hab. MEXICO, Patzcuaro (*Flohr*). One example.

Distinct from all other species by its colours, shining rusty red on the upper surface

of its head and thorax, paler red on under surface and limbs, and brilliant light brassy green on the elytra, where the reddish ground-colour shines through the metallic surface.

TACHYTA (p. 137).

Tachyta autumnalis (p. 137).

To the localities given add:—PANAMA, Bugaba (*Champion*).

4. **Tachyta** —.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

A single example of a distinct species, apparently belonging to this genus; but the antennæ being defective, it cannot be placed with certainty.

LYMNASTIS (p. 138; to follow the genus *Tachyta*).

Lymnastis, Motschulsky, Etud. Entom. xi. 1862, p. 27; Chaudoir, Rev. et Mag. Zool. 1868, p. 21.

A genus of small, sublinear, flattened insects closely allied to *Tachys*, but distinguished by the head being sunk in the thorax as far as the eyes. Species are known from North, Temperate, and Tropical America, Egypt, and India.

The following species differs in the eyes being distant from the thorax, owing to the length and width of the posterior part of the head; but the anterior angles of the thorax embrace closely the sides of the neck, and the species resembles *Lymnastis* in general form.

1. **Lymnastis capito.**

Oblongus, depressus, pallide testaceus; capite magno, post oculos prominentes et conspicuos, lato, parallelo; thorace cordato; elytris obsolete striatis.

Long. 1 millim.

Hab. GUATEMALA, San Gerónimo (*Champion*).

TACHYS (p. 138).

Tachys diploharpinus (p. 138).

To the localities given add:—PANAMA, Bugaba (*Champion*).

Tachys chiriquinus (p. 139).

To the localities given add:—PANAMA, San Miguel, Pearl Islands (*Champion*).

A dwarfed form, measuring only 1 lin.

4 (A). **Tachys monostictus.**

Tachys monostictus, Bates, Entom. Monthl. Mag. viii. p. 11 (1871) ¹.

Hab. PANAMA, Peña Blanca (*Champion*).—SOUTH AMERICA, Amazons ¹.

Tachys castaneicolor (p. 139).

To the localities given add:—PANAMA, Bugaba (*Champion*).

4 (B). **Tachys limbatellus.**

T. corusco magis elongatus, subdepressus, fulvo-testaceus; capite elytrorumque sutura et marginibus fuliginofuscis; palpis, labro et pedibus pallide testaceis, antennis plus minusve infuscatis; thorace parum transverso, postice sat angustato, angulis posticis valde obtusis nullo modo prominentibus; elytris (stria suturali excepta) vage 2- vel 3-striatis (striis exterioribus curvatis).

Long. $1\frac{1}{4}$ lin.

Hab. PANAMA, Bugaba (*Champion*).

More elongated and parallel-sided and flatter than *T. coruscus*, *T. monostictus*, *T. chiriquinus*, and allies, approaching in these respects *T. scutellaris*. The colour is rather dingy pale testaceous, with the greater part of the head, the suture, and external borders of the elytra sooty brown, and the dusky colour being ill-defined. The elytra have an opalescent silky gloss, not so strong as in *T. coruscus*; and the shallow striæ, two to three or four on each side of the sharp sutural striæ, have an appearance as though converging inwards towards the base.

4 (C). **Tachys diminutus.**

Tachys diminutus, Bates, Entom. Monthl. Mag. viii. p. 11 (1871) ¹.

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Amazons ¹.

Much smaller than *T. coruscus*, and further distinguished by the hind angles of the thorax being salient. In my original description I mentioned only one, the sutural, stria as being distinct; this does not reach the base, and there are faint indications of two or more other much abbreviated striæ, which are rather more conspicuous in the Panama than in the Amazons examples.

4 (D). **Tachys vorax.**

Tachys vorax, Leconte, Ann. Lyceum N. York, v. p. 194 ¹.

Hab. NORTH AMERICA, Rivers Gila and Colorado ¹.—MEXICO, Northern Sonora (*Morrison*).

19(A). **Tachys insularum.**

T. amplicolli affinis; paullo minor, sat convexus, rufo-testaceus; antennis, basi pedibusque pallidioribus; thorace valde transverso, antice rotundato-ampliato, postice sat angustato, sinuato, angulis rectis; elytris ovatis, stria suturali basin attingenti, 2^a profunde impressa, 3^a minus distincta et multo abbreviata; punctis setiferis utrinque duobus discoidalibus, striola recurva, curta.

Long. $\frac{2}{3}$ lin.

Hab. PANAMA, San Miguel, Pearl Islands (*Champion*).

Distinguished from *T. amplipennis* by its smaller size and the distinctly impressed, though abbreviated, second and third striae. From *T. jansoni* it differs in the much broader thorax and the simple or very faintly punctured second and third striae.

Tachys jansoni (p. 143).

To the localities given add:—PANAMA, Bugaba (*Champion*).

24 (A). **Tachys duplex**.

T. cribellato proxime affinis. Castaneo-fuscus (capite thoraceque interdum rufioribus) supra subæneo tinctus, macula indistincta humerali elytrorumque margine plus minusve rufo-castaneis; palpis, antennis pedibusque fulvo-testaceis; thorace sat late transverso, antice valde rotundato, postice sinuato-angustato, angulis posticis rectis, sulco basali recto, punctulato-crenulato, prope angulum carinula obtusa obliqua; elytris utrinque striis punctatis quinque, 5^a laterali valde abbreviata, suturali versus apicem tantum acute impressa ibique impunctata.

Long. 1 lin.

Hab. GUATEMALA, San Gerónimo (*Champion*).

Rather larger and broader than *T. immaculatus*; the fifth stria much shorter, terminating at about one third the length of the elytra, whilst in *T. immaculatus* it extends beyond the middle, and is not perceptibly shorter than the fourth.

24 (B). **Tachys immaculatus**.

Pericompsus immaculatus, Bates, Entom. Monthl. Mag. vii. p. 246¹.

Var. Capite elytris cum plaga communi discoidale ænescenti-fuscis.

Hab. PANAMA, near the city (*Champion*).—SOUTH AMERICA, Amazons¹.

This species will be better placed in *Tachys* than in *Pericompsus*, owing to the total absence of the sixth elytral stria, which is the only structural character of the latter genus. With *T. duplex*, *T. cribellatus*, and the following (*T. gracilior*) it forms a section of *Tachys* which approaches *Pericompsus* not only in the number of the striae, but in these being all, including the sutural (except near the apex), equally incised. In *Tachys* (typical) the sutural stria is distinguished from the rest (except always, of course, the marginal) in being more acutely impressed.

24 (C). **Tachys gracilior**.

Pericompsus ephippiato (Say) quoad formam simillimus; differt elytris 5 striatis, striis conspicue punctatis, haud impressis: rufo-testaceus, elytris utrinque pone medium macula vaga angulari rufo-fusca apiceque flavo-testaceis.

Long. 1½ lin.

Hab. MEXICO, Yantepec (*Flohr*).

Differs from the other 5-striated *Tachys* by its more slender form, in which it

resembles *Pericompsus ephippiatus*. The thorax is rather narrowly cordate, more sinuated behind than in *P. ephippiatus*; the elytral striæ are not impressed, but form five rows of rather large punctures.

PERICOMPSUS (p. 143).

5. *Pericompsus quadrillum*.

P. stictico quam proxime affinis; sed differt maculis flavis elytrorum majoribus, præcipue prima a margine usque ad striam quartam extensa. Paulo longior, viridi-æneus, antennis fuscis, articulis 1^o-3^m pedibusque flavo-testaceis, elytris utrinque maculis duabus flavis, prima ut supra descripta, secunda ante apicem transversa paullo obliqua.

Long. 1 $\frac{1}{3}$ lin.

Hab. MEXICO, Tuxtla (*Sallé*).

One example only.

6. *Pericompsus histrionellus*. (Tab. XIII. fig. 20.)

Quam *P. ephippiatus* brevius ovatus; fulvo-testaceus, thoracis disco utrinque plaga fusca, elytris nigro-fuscis macula ovata basali prope suturam, altera longiori basali juxta marginem fasciaque abbreviata (vel macula ovali transversa) paullo ante apicem, fulvo-vel flavo-testaceis; thorace cordato angulis posticis acutis, sulco basali crenato-punctato, elytris ovatis convexis, striis punctatis integris sex.

Long. 1 lin.

Hab. PANAMA, Los Remedios (*Champion*).

7. *Pericompsus sellatus*.

Pericompsus sellatus, Leconte, Ann. Lyceum N. York, v. p. 191¹.

Hab. NORTH AMERICA, Colorado River¹.—MEXICO, Northern Sonora (*Morrison*).

XYSTOSOMUS (p. 146).

4. *Xystosomus ampliatus*.

X. belti affinis; differt thorace post angulos anticos magis rotundato-dilatato, lateribusque latius explanato-reflexis, rufis. Ovatus, supra purpurascenti-fuscus, subopalescens, antennis dimidio basali (cæteris fuscis) thoracis marginibus pedibusque rufo-testaceis; elytris multo grossius punctato-striatis, stria 7^a minus profunde impressa.

Long. 2 $\frac{1}{3}$ lin.

Hab. PANAMA, Bugaba (*Champion*).

Distinguishable from *X. belti* at first sight by its dark purplish-brown colour and somewhat larger size. The broader reflexed margins and the anteriorly more rounded thorax seem to be good specific characters.

BEMBIDIUM (p. 147).

1 (A). *Bembidium cyclodes*.

B. sphaerodero proxime affine, sed differt elytris multo minus convexis, subtiliter striato-punctatis, macula

indistincta humerali alteraque majori obliqua ante apicem rufis; antennis palpisque fusco-nigris, illis articulis 1^o-3^m rufis; pedibus flavo-testaceis, femoribus, tibiis apice tarsisque infuscatis.

Long. $1\frac{3}{4}$ lin.

Hab. MEXICO, Oaxaca (*Höge*).

Similar in form to *B. sphæroderum* and in the glossy bronzed black colour; but the elytra are flattened above, and have much finer rows of punctures, the sutural one alone reaching to the apex, gradually becoming an impressed stria, the others (four on each elytron) being much abbreviated; the last only half the length of the elytron. The head is broad, with large and prominent eyes, and the forehead has two impressed lines near each eye, enclosing a setiferous puncture. The thorax approaches a circular form, but is much broader than long.

1 (B). *Bembidium poculare*.

B. cyclodi simile, sed differt palpis, pedibus antennarumque articulis 4 pallide rufis; supra planatum viridi-æneo-nigrum, elytris grossius punctato-striatis utrinque macula magna curvata subhumerali, altera subovata ante apicem, rufo-testaceis.

Long. $1\frac{3}{4}$ lin.

Hab. MEXICO (*Flohr*).

The red humeral spot begins at the base, and occupies for a considerable length the sixth and seventh interstices; at its end it passes to the fifth interstice, on which it forms a small spot. The eyes seem larger and more prominent than in *B. cyclodes*, and are much larger than in *B. sphæroderum*.

4 (A). *Bembidium flavopictum*.

Bembidium flavopictum, Motschulsky, Käf. Russ. p. 13 (1850).

Bembidium pictum, Leconte, Ann. Lyc. N. Y. iv. p. 461 (1848) (nec *B. pictum*, Falderm. 1835).

Hab. NORTH AMERICA, California, Texas.—MEXICO, Northern Sonora (*Morrison*), San Pedro Coahuila (*Dr. Palmer*).

Bembidium vernale (p. 149).

Var. Antennarum articulo primo solum rufo, elytrorumque striis exterioribus longe ultra medium prolongatis sed fere obsoletis.

Hab. PANAMA, Peña Blanca (*Champion*).

The variety differs from the Mexican type-form only in the unimportant points above mentioned. Mr. Champion's fresh specimens, however, show a brighter bluish-green colour. With its polished uniform metallic coloration and clear reddish legs it makes a handsome species, distinguishable at once from *B. mexicanum* both in colour and its smaller size.

8 (A). *Bembidium satellites*.

B. vernali proxime affine, sed differt elytris antice gradatim angustatis (haud oblongis) multo profundius

punctato-striatis, striaque 7^a conspicua; coloribus autem corpore supra æneo-vel olivaceo-nigro, nitido, antennis obscure rufis, articulis 1^o-3^m et palpis clare rufis; capite thoraceque ut in *B. vernali*.

Long. 2½ lin.

Hab. PANAMA, Peña Blanca (*Champion*).

Apparently found in company with *B. vernale*. It much resembles the European (and British) *B. affine*, and is barely distinct from it as a species.

Bembidium mexicanum (p. 148).

To the Mexican localities given add:—Northern Sonora (*Morrison*).

Many examples (labelled *Bembidium*, n. sp.) from Morrison, precisely similar to the bluish form of this species from the 'tierra templada' of Mexico.

Bembidium scintillans (p. 150).

To the localities given add:—NORTH AMERICA, Arizona (*Morrison*).—MEXICO, Northern Sonora (*Morrison*).

Morrison's specimens (labelled *Bembidium*, n. sp.) differ from Central and South Mexican ones by the striæ being a little less impressed for a short distance near the apex, and free from punctures for about a fifth of their length from the apex; in typical examples the punctuation of the striæ continues distinctly further towards the apex. The difference is scarcely worthy of a name as a local form.

ANCHONODERUS (p. 152).

1 (A). **Anchonoderus myops**.

Anchonoderus myops, Reiche, Rev. Zool. 1843, p. 39¹.

Var. *A. duplicatus*. Differt a typo solum macula parva flava prope humerum. (An *A. reichei*, Putzeys, Mitth. Münchener ent. Vereins, ii. p. 57?)

Hab. PANAMA, Bugaba (*Champion*).—SOUTH AMERICA, Colombia¹.

A. myops, according to Reiche's diagnosis, differs from *A. binotatus* in its somewhat larger size and its wider thorax ("thorax capite paullo latior"), *A. binotatus* having "thorax capite vix latior." These features distinguish the numerous series taken by Mr. Champion at Bugaba. The additional red spot near the shoulder is not accompanied by any other difference, and I doubt if the variety be *A. reichei*, Putzeys, from Colombia, as he says the thorax is shorter and "plus brusquement rétréci avant les angles de la base." There is no difference in the form of the thorax from *A. myops*.

3 (A). **Anchonoderus infirmus**.

A. subæneo affinis, at minor graciliorque, elytris subtilissime punctulatis. Castaneo-rufus, capite thoraceque obscurioribus ænescentibus, antennarum dimidio basali, partibus oris pedibusque flavo-testaceis; palpis apice gradatim acuminatis; capite politissimo impunctato; oculis parum prominentibus; thorace quam

caput paullo angustiori, anguste cordato, prope basin profunde sinuato, angulis posticis subacutis, dorso obsolete ruguloso; elytris subdepressis apice obtuse truncatis, acute (vix punctulatim) striatis, interstitiis planis, minute et crebre punctulatis.

Long. $2\frac{3}{4}$ lin.

Hab. PANAMA, Peña Blanca (*Champion*).

A very distinct species, of slender form and fine but close punctuation of the elytra.

LACHNOPHORUS (p. 153).

Lachnophorus guttulatus (p. 153).

This species is apparently very closely allied to *L. angusticollis*, Putzeys (Mitth. München. ent. Ver. ii. (1878) p. 55) from Medellin, Colombia; agreeing in the markings of the elytra, but differing in the dark piceous colour of the legs ("testaceis" in Putzey's description), the nearly smooth thorax (not "crebre punctatus"), and the very deeply incised elytral striæ (far from the "striato-punctata" of the description referred to). Mr. Champion took a large series of the species at Bugaba.

Lachnophorus pictipennis (p. 154).

To the localities given add:—PANAMA, Tolé (*Champion*).

EUPHORTICUS (p. 156).

2 (A). **Euphorticus lucidus**.

Eu. pubescenti brevior et latior. Supra læte subaurato-æneus, elytris purpurascanti-fuscis æneo-tinctis, utrinque plagis duabus obscure rufis, prima subhumerali plus minusve late virguliformi, secunda ante apicem fasciam arcuatam (a stria 2^a usque ad striam 8^m extensa) formanti; palpis antennisque fusco-testaceis, his articulis 1^o–5^m pedibusque fulvo-testaceis; capite lato, vertice utrinque sparsim grosse punctato; oculis magnis; thorace breviter rotundato-cordato, juxta basin constricto angulis posticis rectis, dorso grosse ruguloso sed polito; elytris acute striatis, stris usque ultra medium grosse punctatis, interstitiis uniseriatim punctatis hic illic rugulosis.

Long. $1\frac{3}{4}$ lin.

Hab. PANAMA, Bugaba, David, Tolé (*Champion*).

Very closely allied to *E. quadrinotatus* (Bates) from Rio de Janeiro; differing in its much brighter coloration and the form of the red spots on the elytra.

CASNONIA (p. 160).

1 (A). **Casnonia pennsylvanica**.

Attelabus pennsylvanicus, Linn. Syst. Nat. ed. 12, p. 620.

Casnonia pennsylvanica, Dej. Sp. Gen. Col. i. p. 170¹.

Hab. NORTH AMERICA¹, widely distributed in the United States.—MEXICO, Northern Sonora (*Morrison*).

2 (A). **Casnonia lineolata.** (Tab. XIII. fig. 23.)

C. cyanescenti (Chaud.) affinis, quoad formam simillima, sed differt *inter alia* elytris utrinque plagis duabus ex lineolis formatis albo-testaceis, prima ante medium extus versus humerum obliquata interstitia 4^m-8^m, secunda transversa ante apicem interstitia 5^m-8^m, occupanti. Nigra, nitida; antennis et pedibus piceofuscis, illarum articulis 1^o-4^m fulvis, 8^o-9^m albis, femoribus basi, tibiis annulo lato, tarsisque partim, testaceo-albis; capite post oculos elongato, recte triangulari impunctato; thorace elongato-angusto, versus medium perparum dilatato, supra transversim haud acute striolato; elytris elongato-oblongis, apice extus breviter dentatis, supra utrinque areis duabus depressis, punctato-striatis, striis apud areas depressas profundis ibique interstitiis convexis; interstitiis 3^o et 5^o seriatim punctatis.

Long. 4 lin.

Hab. PANAMA, Bugaba, David (*Champion*).

CALOPHÆNA (p. 163).

Calophæna bicincta (p. 163).

To the localities given add:—PANAMA, Bugaba (*Champion*).

GALERITA (p. 164).

1 (A). **Galerita mustelina.**

G. jelskyi (Chaudoir) proxime affinis et similis, sed differt occipite sparsim punctato fere lævi. Elongata, angusta, nigra, opaca (capite thoraceque subnitidis), tarsis rufo-piceis; capite (♂) quam in *G. jelskyi* (♂) (præcipue spatio inter oculos) conspicue latiori, pone oculos vix prominentes curto, rotundato, convexo, fronte ruguloso-punctato, occipite fere lævi nitido; thorace elongato angusto, antice gradatim modice angustato, crebre punctulato; elytris sicut in *G. jelskyi* elongatis, versus basin angustatis, humeris nullis, costis et costulis geminatis modice elevatis.

Long. 9 lin. ♂.

Hab. COSTA RICA (*coll. Bates*).

I have had this species for many years in my collection among a series of *G. jelskyi* from Ecuador. It is apparently closely allied to *G. stenodera* (Chaud.) from South Brazil, but with narrower or less ovate elytra.

1 (B). **Galerita championi.**

G. mustelince affinis; differt capite post oculos multo longiori, semiovali. Elongato-angusta, nigra, subopaca; tarsis fulvo-piceis; capite (♂) ovato, oculis parvis parum prominentibus, post oculos minus convexo, passim grosse, sed haud profunde, crebre punctato; thorace adhuc magis elongato; elytris sicut in *G. jelskyi* elongatis, antice gradatim usque ad basin angustatis, humeris nullis, costis et costulis geminatis acutius elevatis.

Long. 10 lin. ♂.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).

One example only.

6 (A). **Galerita americana.**

Carabus americanus, Linn. Syst. Nat. ii. p. 671.

Galerita geniculata, Dej. Sp. Gén. Col. v. p. 297¹.

Hab. PANAMA, Volcan de Chiriqui (*Champion*).—West Indies¹. SOUTH AMERICA, Cayenne¹.

DIAPHORUS (p. 166).

1 (A). **Diaphorus elegans.** (Tab. XIII. fig. 21.)

Diaphorus elegans, Chaudoir, Bull. Mosc. 1862, iv. p. 317¹.

Hab. PANAMA, Peña Blanca (*Champion*).—SOUTH AMERICA, Amazons¹, Sta. Catharina, S. Brazil.

BRACHINUS (p. 169).

13 (A). **Brachinus** —?

Hab. MEXICO, Presidio (*Forrer*).

A large species, which, in the present confused state of the literature relating to the allied North-American species, it is not possible to determine.

14. **Brachinus fidelis.**

Brachinus fidelis, Leconte, Proc. Acad. Phil. 1862, p. 524¹.

Hab. NORTH AMERICA, New Mexico, Arizona, Lower California¹.—MEXICO, Northern Sonora (*Morrison*).

15. **Brachinus hirsutus**, n. sp.

Quoad formam *B. mexicano* simillimus, sed differt corpore supra (præcipue thorace) longe et dense pubescenti. Testaceo-rufus, antennis concoloribus, abdominis margine atro-fusco, elytris olivaceis sutura et costis 1^a-4^m solum distincte et acute elevatis; thorace sicut in *B. mexicano* lato et postice valde constricto sed subopaco.

Long. 4 lin.

Hab. MEXICO, Pinos Altos in Chihuahua (*Hepburn*).

TETRAGONODERUS (p. 171).

Tetragonoderus mexicanus (p. 173).

To the localities given add :—PANAMA, Tolé (*Champion*).

MASOREUS (p. 174).

Masoreus piceolus (p. 175).

To the localities given add :—PANAMA, Tolé (*Champion*).

PHLŒOXENA (p. 176).

Phlœoxena graphiptera (p. 177).

Var. *b.* (*Ph. limbicollis*). Thoracis limbo lato laterali fulvo.

Hab. PANAMA, Bugaba (*Champion*).

COPTODERA (p. 180).

14. *Coptodera robusta*.

Oblonga, nitida, nigra; elytris ænescentibus; palpis, labro, antennis et tarsi piceo-rufis; labro sat brevi apice late triangulariter exciso; thorace transversim quadrato, medio sat rotundato, ante basin sinuato parum angustato, angulis posticis rectis, lateribus alte reflexis sulco marginali ruguloso; elytris oblongo-quadratis, apice sinuato-truncatis angulis rotundatis, profunde striatis, striis inconspicue punctatis, subrenatis, interstitiis fere planis, tertio tripunctato, puncto primo prope basin, tertio prope apicem, sito.

Long. $5\frac{1}{4}$ lin. ♀.

Hab. COSTA RICA (*Van Patten*).

A remarkable species, differing from all other known *Coptodera* in the rather short triangularly excised labrum. In this respect it approaches *Nycteis*, from which it again differs in the robust tooth in the emargination of the mentum, a character of *Coptodera*. I have seen one female example only.

PINACODERA (p. 187).

6. *Pinacodera punctigera*.

Cymindis punctigera, Leconte, Ann. Lyceum N. York, v. p. 178¹.

Pinacodera punctigera, Chaud. Bull. Mosc. 1875, p. 4.

Hab. NORTH AMERICA, R. Colorado and Gila¹.—MEXICO, N. Sonora (*Morrison*).

7. *Pinacodera* — ?

Hab. MEXICO, Guanajuato (*Dugès, coll. Sallé*).

A single example, much resembling North-American species allied to *P. platycollis*.

CYMINDIS (p. 188).

2. *Cymindis laticollis*.

Cymindis laticollis, Say, Trans. Amer. Phil. Soc. iv. p. 413; Horn, Trans. Amer. Ent. Soc. x. p. 150 (1882)¹.

Hab. NORTH AMERICA, Colorado, Texas, New Mexico¹.—MEXICO, Northern Sonora (*Morrison*).

3. *Cymindis uniseriata*.

C. planipenni (Lec.) affinis, sed elytris absque macula humerali, interstitisque punctorum unica serie. Paullo latior et magis depressa, nitida parce setosa, piceo-nigra, nullomodo metallica; antennis, palpis, pedibus, thoracis et elytrorum marginibus epipleuris pectorisque medio ferrugineo-rufis; capite et thorace sicut in *C. planipenni*, sed paullo parcius punctatis; elytris versus basin sat angustatis, acute punctato-striatis, apice sinuato-truncatis.

Long. $4\frac{1}{2}$ lin.

Hab. MEXICO, Pinos Altos in Chihuahua (*Hepburn*).

The interstitial punctures are larger than usual in this section of *Cymindis* and are in a single row, as in *C. elegans*, Lec.

APENES (p. 188).

11. *Apenes calligramma*. (Tab. XIII. fig. 22.)

Parva, gracilis, parum nitida, castaneo-fusca; capite fere nigro; palpis, antennis, pedibus elytrorumque signaturis fulvis; capite ovato, post oculos rotundato-tumido, supra crebre haud profunde striguloso; thorace cordato-quadrato angusto, ante basin sinuato, angulis posticis fere rectis, lobo basali perparum producto, supra subtiliter confuse striguloso vel coriaceo; elytris elongato-oblongis (postice parum dilatatis), apice sinuatis, macula humerali lineolam apud interstitium 6^m emittente, fascia valde arcuata (ab humero usque fere ad medium curvata, deinde per interstitium 2^m usque ad basin recurvata), fasciola maculari ante apicem (interstitia 5^m-8^m occupante), macula apicali marginibusque angustis, fulvis.

Long. 2½ lin.

Hab. PANAMA (*Champion*).

12. *Apenes nebulosa*.

Apenes nebulosa, Leconte, Proc. Acad. Nat. Sci. Phil. 1866, p. 364; Horn, Trans. Amer. Ent. Soc. x. 1882, p. 158¹.

Hab. NORTH AMERICA, Arizona, Lower California¹.—MEXICO, Northern Sonora (*Morrison*).

APRISTUS (p. 191).

Apristus tropicalis (p. 191).

To the localities given add:—PANAMA, Bugaba, Tolé (*Champion*).

Three examples taken by Mr. Champion differ from *A. mexicanus* and *A. longulus* pretty nearly as required by Motschulsky's description, and in accordance with the observations in my remarks on the species. It can, however, scarcely be specifically different from *A. mexicanus*.

PLOCHIONUS (p. 197).

Plochionus pallens (p. 198).

M. Sallé informs me that *P. valens*, Leconte (New Species Col. i. p. 5), from Pennsylvania, is to be added to the synonymy of this species.

ONOTA (p. 198).

2. *Onota fulvella*. (Tab. XIII. fig. 25.)

O. angulicollis affinis, sed differt statura majore, colore toto testaceo-rufo, vitta laterali viridi-ænea excepta, ab humeris usque ad elytrorum dimidium extensa, interstitia 8^m-9^m occupante; capite et thorace sicut in *O. angulicollis*; elytris relative longioribus, elongato-oblongis, striis profundius impressis vix conspicue punctulatis, interstitiis sat convexis.

Long. 3½ lin.

Hab. PANAMA, Bugaba (*Champion*).

PHILOPHEUGA (p. 202).

Philopheuga viridicollis (p. 202).

Var. Violascenti-cyanea.

Hab. MEXICO, Northern Sonora (*Morrison*).

BIOL. CENTR.-AMER., Coleopt., Vol. I. Pt. 1, August 1884.

Numerous examples, agreeing with Texan specimens of *P. viridicollis*, Lec., in form and in the possession of wings, but differing in their constant dark blue colour with violet reflections, especially on the elytra. Similar specimens, rather more finely punctured, occur near Mexico city and at Las Vigas.

CALLEIDA (p. 203).

1 (A). **Calleida platynoides.**

Callida platynoides, Horn, Trans. Amer. Ent. Soc. x. p. 137 (1882)¹.

Hab. NORTH AMERICA, California and S.W. Utah.—MEXICO, Northern Sonora (*Morrison*).

27 (A). **Calleida tinctipes.** (Tab. XIII. fig. 24.)

Elongato-oblonga, rufa, nitida; palpis, antennis (scapo basi excepto), femoribus apice, tibiis et tarsis, sutura anguste margineque apicali elytrorum nigerrimis; capite lævi; thorace fere sicut in *C. metallica* sed lateribus late explanato-reflexis, et superficie tota transversim rugulosa; elytris profunde striatis, interstitiis convexis, tertio punctis magnis duobus, primo versus basin, secundo versus apicem sito.

Long. 5 lin.

Hab. PANAMA, Tolé (*Champion*).

There is one example only of this strangely coloured and distinct species.

LOXOPEZA (p. 218).

11 (A). **Loxopeza atriceps.**

Lebia atriceps, Leconte, New Spec. Col. 1863, p. 5¹.

Hab. NORTH AMERICA, Nebraska¹.—MEXICO, Northern Sonora (*Morrison*).

METABOLA (p. 221).

2. **Metabola vivida**, n. sp.

Læte fulvo-rufa; capite, elytrorum margine basali (circa scutellum ampliato) et fascia latissima ante apicem viridi-cyaneis; antennis nigris, basi et apice rufescentibus; pedibus nigris, femoribus basi tibiisque extus flavo-testaceis; capite grosse passim punctato; thorace ruguloso et minus grosse sparsim punctato; elytris sat acute punctulato-striatis, interstitiis planis punctulatis.

Long. 6 millim.

Hab. NORTH AMERICA, Arizona.—MEXICO, Northern Sonora (*Morrison*).

Agrees with *Metabola rufopyga* in all the characters in which that species differs from the true *Lebiæ*, except that the palpi are not so broadly truncated and the antennæ not so stout. The thorax has more distinctly explanated and reflexed lateral margins, and is much more finely punctured; the head, on the contrary, is rather more coarsely punctured, and the elytral striæ more deeply impressed. The species connects *Metabola* with *Lebia*. Dr. Horn informs me that this species is new to him, and I infer that it has not been described.

LEBIA (p. 222).

Lebia corcula (p. 236).

To the localities given add:—PANAMA, Bugaba (*Champion*).

The Panama examples are a little smaller ($1\frac{2}{3}$ lin.) than those from Chontales.

66 (A). **Lebia** — ?

Hab. MEXICO, Guajuco, Nuevo Leon (*Dr. Palmer*).

A single specimen in very bad condition of a species apparently very near *Dianchomena leptodera*, Chaudoir.

AGRA (p. 245).

31. **Agra truquii**.

Agra truquii, Chaud. Ann. Soc. Ent. Fr. 1866, p. 98.

Hab. MEXICO.

I am indebted to M. Sallé for pointing out that I had omitted this species. It is possibly from South Brazil, where Truqui (who is said to have taken it in Mexico) also formed a collection.

INDEX.

[Names in small capitals refer to Families &c.; those in roman type to the chief reference to each species included in the work ; those in italics to species incidentally mentioned, synonyms, &c.]

<p>ABARIS Page 85</p> <p><i>Abaris</i> 86</p> <p>— <i>æquinoctialis</i> 86</p> <p>— <i>bigenera</i> 86</p> <p>— <i>picipes</i> 85</p> <p>— <i>striolata</i> 85</p> <p><i>Abarys</i> 85</p> <p>— <i>æquinoctialis</i> 86</p> <p><i>Abropus</i> 100</p> <p>— <i>semirufus</i> 128</p> <p><i>Acinopus</i> 73, 275</p> <p><i>Acupalpus</i> 70, 133</p> <p>— <i>circumdatu</i>s 72</p> <p>— <i>flohri</i> 72</p> <p>— <i>lugubris</i> 71</p> <p>— <i>misellus</i> 71</p> <p>— <i>obesus</i> 71</p> <p>— <i>obsoletus</i> 71</p> <p>— <i>rotundicollis</i> 71</p> <p>ADEPHAGA 1</p> <p>ADRMUS 87</p> <p><i>Adrimus</i> 88</p> <p>— <i>creperus</i> 87</p> <p>— <i>olivaceus</i> 87</p> <p><i>Æphnidius</i> 174</p> <p>— <i>piceolus</i> 175</p> <p><i>Agaosoma</i> 64</p> <p><i>Agonoderus</i> 70</p> <p><i>Agonum</i> 93, 103, 280, 281, 282</p> <p>— <i>alcyoneum</i> 94</p> <p>— <i>anthracinum</i> 94</p> <p>— <i>flavipes</i> 97</p> <p>— <i>foveicolle</i> 95</p> <p>— <i>luctuosum</i> 95</p> <p>— <i>morosum</i> 281</p> <p>— <i>orbicollis</i> 95</p> <p>— <i>placidum</i> 95</p> <p>— <i>rufipes</i> 95</p> <p>— <i>suturale</i> 95</p> <p>— <i>viduum</i> 87</p> <p>AGRA 245, 299</p>	<p><i>Agra</i> Page 159</p> <p>— <i>ænea</i> 252, 253</p> <p>— <i>æneola</i> 246</p> <p>— <i>auronitens</i> 252</p> <p>— <i>auronitens</i> 253</p> <p>— <i>brevicornis</i> 249</p> <p>— <i>castaneipes</i> 246</p> <p>— <i>castaneipes</i> 247</p> <p>— <i>championi</i> 253</p> <p>— <i>chlorocera</i> 249</p> <p>— <i>chrysopteryx</i> 251</p> <p>— <i>cytherea</i> 250, 251</p> <p>— <i>dimidiata</i> 253</p> <p>— <i>dominula</i> 246</p> <p>— <i>elaina</i> 250</p> <p>— <i>eurypelma</i> 245</p> <p>— <i>eurypelma</i> 246</p> <p>— <i>fada</i> 248</p> <p>— <i>fada</i> 249</p> <p>— <i>femorata</i> 250</p> <p>— <i>fulvicauda</i> 249</p> <p>— <i>gemmata</i> 246</p> <p>— <i>gracilis</i> 248</p> <p>— <i>ictina</i> 252</p> <p>— <i>immersa</i> 250</p> <p>— <i>infuscata</i> 247, 248</p> <p>— <i>insidiosa</i> 246</p> <p>— <i>læticolor</i> 250</p> <p>— <i>latipes</i> 245</p> <p>— <i>macracantha</i> 246</p> <p>— <i>mexicana</i> 251</p> <p>— <i>mexicana</i> 252</p> <p>— <i>mærens</i> 246, 247</p> <p>— <i>multisetosa</i> 250</p> <p>— <i>nigripes</i> 247</p> <p>— <i>nigripes</i> 254</p> <p>— <i>oblongo-punctata</i> 247</p> <p>— <i>oblongo-punctata</i> 248, 254</p> <p>— <i>obscuripes</i> 254</p> <p>— <i>oliviella</i> 250</p> <p>— <i>palmata</i> 245</p>	<p><i>Agra panamensis</i> Page 252</p> <p>— <i>panamensis</i> 253</p> <p>— <i>purpurea</i> 251</p> <p>— <i>purpurea</i> 252</p> <p>— <i>regularis</i> 248</p> <p>— <i>resplendens</i> 248</p> <p>— <i>resplendens</i> 247</p> <p>— <i>rufescens</i> 254</p> <p>— <i>rufipes</i> 245</p> <p>— <i>rufiventris</i> 248</p> <p>— <i>rufiventris</i> 249</p> <p>— <i>rufo-ænea</i> 253</p> <p>— <i>rugoso-striata</i> 254</p> <p>— <i>rutilipennis</i> 251</p> <p>— <i>semifulva</i> 249</p> <p>— <i>soccata</i> 247</p> <p>— <i>truquii</i> 299</p> <p>— <i>varians</i> 251</p> <p>— <i>virgata</i> 254</p> <p><i>Agri</i>dia 245</p> <p>AGRINÆ 245</p> <p>ALLOTRIOPUS 81</p> <p><i>Allotriopus serratipes</i> 81</p> <p>AMARA 79, 277</p> <p><i>Amara</i> 75</p> <p>— ? 277</p> <p>— <i>azteca</i> 79</p> <p>— <i>dolosa</i> 78</p> <p>— <i>impuncticollis</i> 79</p> <p>— <i>mexicana</i> 78</p> <p>— <i>sallæi</i> 79</p> <p>— <i>Sallei</i> 79</p> <p>— <i>sera</i> 79</p> <p>— <i>tibialis</i> 46</p> <p>AMARINÆ 75</p> <p><i>Amblycoleus</i> 158, 160</p> <p>AMBLYGNATHUS 66, 276</p> <p><i>Amblygnathus mexicanus</i> 66</p> <p>— <i>nigripennis</i> 276</p> <p>— <i>ruficollis</i> 276</p> <p><i>Amblytelus</i> 158</p>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	Page		Page		Page
ANATRICHIS	47, 269	<i>Anchomenus variolatus</i>	97	<i>Apenes nebulosa</i>	297
<i>Anatrichis alutaceus</i>	48	— <i>viduus</i>	87	— <i>obscura</i>	189
— <i>alutaceus</i>	269	— <i>vixstriatus</i>	97	— <i>pallidipes</i>	189
— <i>longulus</i>	48	— <i>xanthocnemis</i>	281	— <i>pallipes</i>	189
— <i>piceus</i>	47, 269	ANCHONODERUS	152, 292	— <i>parallela</i>	189
— <i>piceus</i>	48	<i>Anchonoderus</i>	88, 153	— <i>parvula</i>	190
<i>Anaulacus</i>	174	— <i>binotatus</i>	153	— <i>perypoides</i>	190
ANCHOMENINÆ	91	— <i>binotatus</i>	292	— <i>purpuripennis</i>	190
ANCHOMENUS	93, 280	— <i>duplicatus</i>	292	— <i>quadripunctata</i>	189
<i>Anchomenus</i> ..88, 91, 92, 96, 97, 99,		— <i>infirmus</i>	292	— <i>sinuata</i>	190
101, 103, 104, 110, 115, 281, 282.		— <i>myops</i>	292	— <i>variegata</i>	189
— ?	282	— <i>reichei</i>	292	<i>Aphelogenia</i> ..236, 237, 239, 240, 243	
— <i>æneolus</i>	280	— <i>subæneus</i>	153	— <i>amabilis</i>	241
— <i>albipes</i>	111	— <i>subæneus</i>	292	— <i>bivittata</i>	241
— <i>alcyoneus</i>	94	— <i>subtilis</i>	153	— <i>discopicta</i>	237
— <i>alcyoneus</i>	95	ANCISTROGLOSSUS	167	— <i>granaria</i>	242
— <i>anthracinus</i>	94	<i>Ancistroglossus dimidiaticornis</i> ..	167	— <i>hilaris</i>	241
— <i>anthracinus</i>	95, 281	— <i>gracilis</i>	167	— <i>quadriplagiata</i>	241
— <i>bicoloratus</i>	280	ANILLUS	145	— <i>vittata</i>	240
— <i>brullei</i>	119	<i>Anillus</i>	144	<i>Apiodera</i>	160
— <i>brunneomarginatus</i>	280	— <i>integripennis</i>	145	— <i>transparentis</i>	161
— <i>cavatus</i>	95	<i>Anisocnemus</i>	62	APRISTUS	191, 297
— <i>charmis</i>	280	ANISODACTYLINÆ	49	<i>Apristus laticollis</i>	191
— <i>concessus</i>	104	ANISODACTYLUS	52	— <i>longulus</i>	192
— <i>cyanopis</i>	94, 281	<i>Anisodactylus</i>	50	— <i>longulus</i>	191, 297
— <i>cyclifer</i>	281	— <i>amaroides</i>	52	— <i>mexicanus</i>	191
— <i>decempunctatus</i>	96	— <i>anthracinus</i>	52	— <i>mexicanus</i>	297
— <i>decorus</i>	280	— <i>dilatatus</i>	52	— <i>subæneus</i>	191
— <i>dominicensis</i>	96	— <i>rotundangulus</i>	52	— <i>subsulcatus</i>	191
— <i>dominicensis</i>	281, 282	— <i>subangustior</i>	52	— <i>tropicalis</i>	191, 297
— <i>elongatulus</i>	93	ANISOTARSUS	49, 269	ARDISTOMIS	33
— <i>extensicollis</i>	93, 280	<i>Anisotarsus</i>	51, 58	<i>Ardistomis batesii</i>	34
— <i>extensicollis</i>	94	— <i>brevicollis</i>	49	— <i>constricta</i>	34
— <i>extensicollis</i> , var. <i>elegantulus</i> ..	280	— <i>brevicollis</i>	270	— <i>convexa</i>	34
— <i>janthinus</i>	282	— <i>castaneus</i>	270	— <i>dyschirioides</i>	34
— <i>maculicollis</i>	282	— <i>chloroderus</i>	50	— <i>educta</i>	34
— <i>misellus</i>	104	— <i>cyanippus</i>	51	— <i>labialis</i>	35
— <i>mæstus</i>	281	— <i>foveicollis</i>	269	— <i>picipes</i>	35
— <i>montezumæ</i>	92	— <i>læviusculus</i>	49	— <i>propinqua</i>	35
— <i>nugax</i>	104	— <i>lamprotus</i>	51	— <i>rotundipennis</i>	34
— <i>obsoletus</i>	95	— <i>mexicanus</i>	51	— <i>seriepunctata</i>	34
— <i>ovatulus</i>	281	— <i>ocreatus</i>	50	— <i>soror</i>	34
— <i>patinalis</i>	95	— <i>ocreatus</i>	269, 270, 273	— <i>striga</i>	34
— <i>placidus</i>	281	— <i>pæciloides</i>	50	— <i>tuspanensis</i>	35
— <i>placidus</i>	95	— <i>purpurascens</i>	50	<i>Argutor strenuus</i>	87
— <i>punctiformis</i>	95	— <i>virescens</i>	50	<i>Aspasia</i>	201
— <i>scutifer</i>	94	<i>Anophthalmus</i>	92	— <i>janthoptera</i>	201
— <i>scutifer</i>	95	APENES	188, 297	ASPASIOLA	200
— <i>simplicior</i>	104	<i>Apenes brevivittis</i>	189	<i>Aspasiola</i>	201
— <i>strigicollis</i>	95	— <i>calligramma</i>	297	— <i>ignea</i>	201
— <i>suffectus</i>	104	— <i>circumcincta</i>	189	— <i>lemoides</i>	201
— <i>suturalis</i>	95	— <i>comis</i>	190	— <i>rutilans</i>	201
— <i>texanus</i>	280	— <i>hamigera</i>	190	ASPIDOGLOSSA	36
— <i>transpunctatus</i>	94	— <i>lunigera</i>	190	<i>Aspidoglossa brachydera</i>	37
— <i>tristis</i>	94	— <i>lunulata</i>	190	— <i>brachyderus</i>	37
		— <i>marginipennis</i>	189	— <i>curta</i>	36

	Page		Page		Page
<i>Aspidoglossa distincta</i>	36	<i>Bembidium sparsum</i>	151	<i>Bradycellus limbicollis</i>	73, 277
— <i>mexicana</i>	36	— <i>sphæroderum</i>	147	— <i>longulus</i>	72
— <i>subangulata</i>	37	— <i>sphæroderum</i> .. 148, 290, 291		— <i>lucidus</i>	71
— <i>torrida</i>	36	— <i>spretum</i>	150	— <i>melanochrous</i>	71
ATHROSTICTUS	65	— <i>spretum</i>	151	— <i>nigrellus</i>	73, 277
<i>Athrostictus chlænioides</i>	66	— <i>submaculatum</i>	149	— <i>nigripennis</i>	71
— <i>opalescens</i>	66	— <i>vernale</i>	149, 291	— <i>nitidus</i>	72
— <i>paganus</i>	66	— <i>vernale</i>	292	— <i>obsoletus</i>	71
— <i>sericatus</i>	66	BLECHRUS	192	— <i>rupestris</i>	72
<i>Attelabus pennsylvanicus</i>	293	<i>Blechrus glabratus</i>	192	— <i>subobsoletus</i>	71
<i>Augasmosomus</i>	39	— <i>nigrata</i>	192	Broscus	39
AXINOPALPUS	192	— <i>nigrinus</i>	192	— <i>basalis</i>	39
<i>Axinopalpus</i>	191	<i>Bothriopterus</i>	82	— <i>glaber</i>	39
— <i>biplagiatus</i>	193	<i>Brachidius</i>	90	<i>Buderes</i>	88
— <i>californicus</i>	193	BRACHININÆ	169		
— <i>fusciceps</i>	193	BRACHINUS	169, 295	CALATHUS	91, 279
— <i>jucundus</i>	193	<i>Brachinus</i> —?	295	<i>Calathus</i>	57, 273
— <i>mexicanus</i>	193	— <i>arboreus</i>	171	— ?	279
<i>Axinophorus</i>	90, 255	— <i>azureipennis</i>	170	— <i>fuscus</i>	279
		— <i>brevior</i>	170	— <i>gregarius</i>	279
BARYSOMUS	67	— <i>carinulatus</i>	170	— <i>mexicanus</i>	91
<i>Barysomus höpfneri</i>	67	— <i>cinctipennis</i>	171	— <i>ovipennis</i>	91, 279
— <i>metallicus</i>	67	— <i>cognatus</i>	170	CALLEIDA	203, 298
<i>Basoleia</i>	90	— <i>complanatus</i>	169	<i>Calleida</i>	168, 201, 202, 212
<i>Basolia</i>	90	— <i>consanguineus</i>	170	— <i>æruginosa</i>	205
— <i>mexicana</i>	90	— <i>convexus</i>	169	— <i>amethystina</i>	213
BEMBIDIINÆ	137	— <i>elongatulus</i>	170	— <i>atrata</i>	208
BEMBIDIUM	147, 290	— <i>fidelis</i>	295	— <i>aureola</i>	204
<i>Bembidium</i>	136, 150	— <i>geniculatus</i>	170	— <i>aurescens</i>	204
— <i>n. sp.</i>	292	— <i>hirsutus</i>	295	— <i>aurescens</i>	213
— <i>affine</i>	292	— <i>lateralis</i>	171	— <i>auricollis</i>	213
— <i>championi</i>	148	— <i>melanarthrus</i>	171	— <i>basalis</i>	214
— <i>cognatum</i>	148	— <i>mexicanus</i>	169	— <i>bella</i>	214
— <i>cyclodes</i>	290	— <i>mexicanus</i>	295	— <i>brunnea</i>	203
— <i>cyclodes</i>	291	— <i>rhytiderus</i>	170	— <i>brunnea</i>	208, 214, 215
— <i>ephippiatum</i>	145	— <i>sallæi</i>	171	— <i>championi</i>	210
— <i>flavopictum</i>	291	— <i>ventralis</i>	170	— <i>championi</i>	211
— <i>flavopictum</i>	148	<i>Brachynus</i>	169	— <i>chryseis</i>	209
— <i>flohri</i>	150	— <i>azureipennis</i>	170	— <i>chryseis</i>	210
— <i>immaturatum</i>	149	— <i>cognatus</i>	170	— <i>circumcincta</i>	212
— <i>incurvum</i>	140	— <i>consanguineus</i>	170	— <i>cordicollis</i>	214
— <i>inornatum</i>	137	— <i>elongatulus</i>	170	— <i>cupreocincta</i>	210, 212
— <i>lucidum</i>	149	— <i>geniculatus</i>	170	— <i>cyanippe</i>	206
— <i>mexicanum</i>	148, 292	— <i>lateralis</i>	171	— <i>cyanoptera</i>	214
— <i>mexicanum</i>	149, 291	— <i>melanarthrus</i>	171	— <i>dimidiata</i>	213
— <i>nanum</i>	137	— <i>rhytiderus</i>	170	— <i>dives</i>	204, 209, 210
— <i>pictum</i>	148, 291	— <i>sallæi</i>	171	— <i>festiva</i>	213
— <i>placitum</i>	151	<i>Bracteon</i>	136	— <i>fimbriata</i>	212
— <i>poculare</i>	291	BRADYCELLUS	71, 277	— <i>flava</i>	215
— <i>rogersi</i>	148	<i>Bradycellus</i>	67, 68, 69, 70, 74	— <i>flohri</i>	211
— <i>sallæi</i>	148, 149	— <i>angulifer</i>	73	— <i>flohri</i>	212
— <i>satellites</i>	291	— <i>circumdatatus</i>	72, 277	— <i>högei</i>	213
— <i>scintillans</i>	150, 292	— <i>circumdatatus</i>	73	— <i>ignobilis</i>	205
— <i>scintillans</i>	151	— <i>congener</i>	277	— <i>jansoni</i>	206
— <i>semifasciatum</i>	150	— <i>flohri</i>	72	— <i>jansoni</i>	209
		— <i>ingratus</i>	72		

	Page		Page		Page
<i>Calleida lacunosa</i>	206	<i>Callida onypterygioides</i>	209	<i>Calosoma splendidum</i>	20
— <i>lætippennis</i>	205	— <i>pallidipennis</i>	215	— <i>striatipenne</i>	23
— <i>lampra</i>	204	— <i>punctulata</i>	213	— <i>striatipenne</i>	262
— <i>lampra</i>	205	— <i>purpuripennis</i>	206	— <i>striatulum</i>	23
— <i>lindigi</i>	210, 211	— <i>sanguinicollis</i>	214	— <i>striatulum</i>	262
— <i>metallescens</i>	208	— <i>similis</i>	205	— <i>viridisulcatum</i>	21
— <i>metallescens</i>	209, 211	— <i>sulcatula</i>	214	CALYBE	157
— <i>metallica</i>	210, 298	— <i>truncata</i>	208	<i>Calybe belti</i>	157
— <i>misella</i>	206	— <i>viridicincta</i>	211	CAMPTODONTUS	30
— <i>misella</i>	207	<i>Callisthenes</i>	24	<i>Camptodontus cayennensis</i>	30
— <i>onypterygioides</i>	209	<i>Calochroa</i>	15	— <i>isthmus</i>	30
— <i>onypterygioides</i>	206	CALOPACHYS	24	CARABIDÆ	19
— <i>pallidipennis</i>	214	<i>Calopachys viridissimus</i>	24	CARABINÆ	20
— <i>pallidipennis</i>	160	CALOPHÆNA	163, 294	CARABUS	261
— <i>planulata</i>	208	<i>Calophæna acuminata</i>	163	<i>Carabus</i>	263
— <i>platynoides</i>	298	— <i>arcuata</i>	164	— <i>æneus</i>	58
— <i>pulcherrima</i>	204	— <i>bicincta</i>	163, 294	— <i>agassizii</i>	261
— <i>punctulata</i>	213	— <i>complanata</i>	164	— <i>americanus</i>	294
— <i>punctulata</i>	212	— <i>cruciata</i>	163	— <i>amethystinus</i>	213
— <i>purpuripennis</i>	206	— <i>lævigata</i>	163	— <i>bivittatus</i>	241
— <i>regina</i>	207	— <i>ligata</i>	163	— <i>complanatus</i>	169
— <i>resplendens</i>	207	— <i>vitticollis</i>	164	— <i>deckenii</i>	261
— <i>rustica</i>	213	CALOSOMA	20, 262	— <i>forreri</i>	261
— <i>sanguinicollis</i>	214	<i>Calosoma</i>	22, 263	— <i>pallens</i>	198
— <i>scintillans</i>	210	— <i>affine</i>	21	— <i>planus</i>	169
— <i>semicincta</i>	211	— <i>alternans</i>	20	— <i>preslii</i>	263
— <i>semifacta</i>	208	— <i>angulatum</i>	21, 262	— <i>quadristriatus</i>	137
— <i>semirubra</i>	210	— <i>angulicolle</i>	21	— <i>scrutator</i>	20
— <i>semirubra</i>	211	— <i>anthracinum</i>	22	— <i>sylvosus</i>	261
— <i>semirufa</i>	214	— <i>armatum</i>	20	— <i>tædatus</i>	261
— <i>sericinitens</i>	203	— <i>armatum</i>	262	— <i>vittatus</i>	240
— <i>similata</i>	206	— <i>atrovirens</i>	23	<i>Carenum</i>	27
— <i>similis</i>	205	— <i>aurocinctum</i>	20	<i>Cascelius</i>	39
— <i>splendida</i>	213	— <i>blaptoïdes</i>	23	CASNONIA	160, 293
— <i>subærea</i>	206	— <i>blaptoïdes</i>	262	<i>Casnonia</i>	152
— <i>sulcatula</i>	214	— <i>carbonatum</i>	262	— <i>championi</i>	162
— <i>sumptuosa</i>	207	— <i>Chevrolatii</i>	22	— <i>corrusca</i>	162
— <i>testacea</i>	215	— <i>cicatricosum</i>	23, 262	— <i>cyanescens</i>	294
— <i>tetrapora</i>	205	— <i>costipenne</i>	23	— <i>irregularis</i>	161
— <i>tinctipes</i>	298	— <i>coxale</i>	21	— <i>lineolata</i>	294
— <i>tristis</i>	208	— <i>depressicolle</i>	23	— <i>marginestriata</i>	161
— <i>tropicalis</i>	209	— <i>depressicolle</i>	262	— <i>marginestriata</i>	162
— <i>truncata</i>	208	— <i>dolens</i>	23	— <i>marmorata</i>	161
— <i>variolosa</i>	207	— <i>flohri</i>	262	— <i>pennsylvanica</i>	293
— <i>viridiaurea</i>	207	— <i>glabratum</i>	22	— <i>picta</i>	160
— <i>viridicincta</i>	211	— <i>læve</i>	22	— <i>pilatei</i>	161
— <i>viridis</i>	202	— <i>læve</i>	262	— <i>pilati</i>	161
CALLEIDINÆ	190	— <i>lævigatum</i>	22	— <i>subdistincta</i>	161
<i>Callida</i>	203	— <i>lævigatum</i>	262	— <i>sulcicauda</i>	162
— <i>amethystina</i>	213	— <i>lugubre</i>	21	— <i>tetrastigma</i>	160
— <i>aurata</i>	209	— <i>peregrinator</i>	21, 262	— <i>tripustulata</i>	161
— <i>basalis</i>	214	— <i>politum</i>	23	— <i>tristigma</i>	161
— <i>bella</i>	214	— <i>politum</i>	262	— <i>tubulifera</i>	162
— <i>cordicollis</i>	214	— <i>prominens</i>	21	CATAPIESINÆ	90
— <i>dives</i>	204	— <i>sayi</i>	262	CATAPIESIS	90
— <i>metallescens</i>	208	— <i>scrutator</i>	20	<i>Catapiesis mexicana</i>	90
— <i>misella</i>	206	— <i>scrutator</i>	262	— <i>sulcipennis</i>	90

	Page		Page		Page
CATASCOPIUS	178	Chlænienius menevillei	42	Cicindela curvata	11
<i>Catascopus</i>	180	— obscuripennis	45	— cyaniventris	13
— angulicollis	179	— obsoletus	44	— <i>cyaniventris</i>	14
— <i>auratus</i>	180	— orbus	43	— <i>cyanosparsa</i>	14
— chontalensis	179	— <i>patrueelis</i>	43	— <i>decostigma</i>	9, 10
— guatemalensis	178	— <i>pauper</i>	45	— <i>dugesii</i>	258
— mexicanus	179	— perplexus	45	— <i>duodecimguttata</i>	258
— obscuriviridis	179	— planipennis	44	— dysenterica	7
— validus	178	— planulatus	266	— <i>dyssenterica</i>	7
— <i>validus</i>	179	— <i>poeyi</i>	45	— euthales	256
CELIA	76	— <i>posticus</i>	43	— <i>favergeri</i>	258
<i>Celia</i>	79, 277	— <i>purpureus</i>	45, 267	— <i>fera</i>	10
— <i>championi</i>	77	— <i>regularis</i>	267	— <i>ferrugata</i>	9
— <i>costaricensis</i>	77	— <i>rodriguezi</i>	42	— <i>flammula</i>	5
— <i>dolosa</i>	78	— <i>rodriguezi</i>	43	— <i>flavopunctata</i>	10
— <i>högei</i>	77	— <i>ruficauda</i>	43, 267	— <i>flohri</i>	9, 260
— <i>högei</i>	78	— <i>ruficauda</i>	266	— <i>gabbi</i>	11
— <i>lugens</i>	76	— <i>sallæi</i>	42	— <i>Gabbi</i>	11
— <i>mexicana</i>	78	— <i>sallei</i>	42	— <i>graphiptera</i>	11
— <i>mexicana</i>	76, 77, 79	— <i>scabricollis</i>	42	— <i>guerini</i>	14
— <i>mœrens</i>	76	— <i>soccatus</i>	44	— <i>guttifera</i>	258
— <i>mœrens</i>	77	— <i>soginoides</i>	41	— <i>hæmorrhagica</i>	9
— <i>sallæi</i>	79	— <i>sparsus</i>	43	— <i>hamata</i>	11
— <i>sera</i>	78	— <i>tricolor</i>	44, 267	— <i>hemichrysea</i>	14
— <i>tenebrionella</i>	78	— <i>validus</i>	41	— <i>hirticollis</i>	10
— <i>xanthognatha</i>	78	— <i>vigilans</i>	44	— <i>högei</i>	6
<i>Ceneus</i>	86	— <i>violaceus</i>	44	— <i>humeralis</i>	10
<i>Cerotalis</i>	39	— <i>virens</i>	45	— <i>hydrophoba</i>	8, 259
<i>Chalybe</i>	157	— <i>viridicollis</i>	44	— <i>hydrophoba</i>	7
— <i>belti</i>	157	CICINDELA	4, 256	— <i>inca</i>	11
<i>Chelonodema</i>	243	<i>Cicindela</i>	6, 11, 15, 257	— <i>incerta</i>	10
CHLÆNIINÆ	41	— <i>æneicollis</i>	13	— <i>inspersa</i>	14
CHLÆNIUS	41, 266	— <i>æneicollis</i>	14	— <i>ioessa</i>	5
Chlænienius aberrans	42, 266	— <i>æquinocialis</i>	169	— <i>ioessa</i>	256, 257
— <i>amabilis</i>	41	— <i>apicalis</i>	11	— <i>ismenia</i>	7
— <i>apicalis</i>	43	— <i>argentata</i>	14	— <i>klugi</i>	9
— <i>azurescens</i>	44	— <i>aterrima</i>	5	— <i>klugi</i>	10
— <i>cærulea</i>	41	— <i>auraria</i>	12	— <i>Klugii</i>	9
— <i>cæruleicollis</i>	42, 266	— <i>aurora</i>	12	— <i>latesignata</i>	4
— <i>chalybeipennis</i>	44	— <i>belti</i>	9	— <i>lemniscata</i>	258
— <i>Chevolati</i>	44	— <i>calochroides</i>	8	— <i>lugens</i>	5, 258
— chlorochrous	43, 267	— <i>carbonaria</i>	5	— <i>luteolineata</i>	5, 259
— chrysopleurus	41	— <i>carolina</i>	1	— <i>macrocnema</i>	12
— <i>chrysopleurus</i>	42, 266	— <i>carthagena</i>	9	— <i>marginalis</i>	13
— <i>circumcinctus</i>	45	— <i>castissima</i>	260	— <i>mellyi</i>	8
— <i>cursor</i>	43	— <i>catharinæ</i>	256	— <i>mellyi</i>	7
— <i>cursor</i>	266	— <i>catharinæ</i>	6, 259	— <i>mexicana</i>	9
— <i>dimidiatus</i>	43	— <i>chevolatii</i>	12	— <i>misella</i>	14
— <i>forreri</i>	266	— <i>chlorocephala</i>	12	— <i>nebulosa</i>	14
— <i>glaucus</i>	267	— <i>chontalensis</i>	13	— <i>nephelota</i>	257
— <i>guatemalensis</i>	43	— <i>chrysippe</i>	257	— <i>obliquans</i>	11
— <i>herbaceus</i>	43	— <i>clarina</i>	6, 259	— <i>obsoleta</i>	256
— <i>herbaceus</i>	266	— <i>corvina</i>	13	— <i>ocellata</i>	10
— <i>leucoscelis</i>	42, 266	— <i>craveri</i>	5	— <i>palliatâ</i>	12
— <i>martinezi</i>	42	— <i>Craveri</i>	5	— <i>pallifera</i>	11
— <i>melanarius</i>	44	— <i>crisoforii</i>	11	— <i>paludosa</i>	14

	Page		Page		Page
<i>Cicindela panamensis</i>	12	<i>Clivina fasciata</i>	33	<i>Colpodes columbinus</i>	114
— <i>papillosa</i>	13, 260	— <i>labialis</i>	35	— <i>concisus</i>	104
— <i>peruviana</i>	11	— <i>lucida</i>	32	— <i>concisus</i>	283
— <i>phosphora</i>	6	— <i>mexicana</i>	36	— <i>conicicollis</i>	128
— <i>ponderosa</i>	10	— <i>parvidens</i>	33	— <i>convergens</i>	127
— <i>pulchra</i>	257	— <i>planicollis</i>	32	— <i>cordatus</i>	119
— <i>punctulata</i>	260	— <i>planulata</i>	32	— <i>cordatus</i>	118
— <i>punctulata</i>	258	— <i>spinipes</i>	33	— <i>crossomerus</i>	114
— <i>punctum</i>	15	— <i>tuberculata</i>	32	— <i>cyanelus</i>	285
— <i>quadrina</i>	16	<i>Cnemalobus</i>	39	— <i>cyanides</i>	112
— <i>quinque-notata</i>	8	<i>Cnidus rostratus</i>	137	— <i>cyanipennis</i>	110
— <i>radians</i>	13	COLPODES	100, 282	— <i>cyanipennis</i>	111
— <i>rectilatera</i>	10, 260	<i>Colpodes</i> .. 96, 98, 99, 101, 102, 103,		— <i>cyanonotus</i>	122
— <i>reichei</i>	11	108, 115, 278, 279		— <i>cyanonotus</i>	285
— <i>roseiventris</i>	9	— —	286	— <i>cyanostolus</i>	122, 286
— <i>rubriventris</i>	7	— <i>acuminatus</i>	115	— <i>cycloderus</i>	114
— <i>rufiventris</i>	7, 259	— <i>acuminatus</i>	119	— <i>delicatulus</i>	111
— <i>rufiventris</i>	8, 258	— <i>æquinotialis</i>	118	— <i>delicatulus</i>	112
— <i>Sallei</i>	7, 8	— <i>ampliatu</i>	127	— <i>deyrollei</i>	116
— <i>scutellaris</i>	15	— <i>amplicollis</i>	110	— <i>dilutus</i>	120
— <i>semicircularis</i>	6	— <i>anchomenoides</i>	103	— <i>dilutus</i>	113
— <i>semicircularis</i>	7, 257	— <i>angulosus</i>	104, 283	— <i>duplex</i>	105
— <i>serpens</i>	11	— <i>aphædrus</i>	112	— <i>durangensis</i>	105
— <i>severa</i>	12	— <i>approximatus</i>	129	— <i>dyschirioides</i>	128
— <i>sexdecim-punctata</i>	7, 259	— <i>ater</i>	98, 99	— <i>ebeninus</i>	109
— <i>sigmoidea</i>	11	— <i>atratus</i>	122	— <i>epilissus</i>	284
— <i>signata</i>	260	— <i>atratus</i>	108, 285	— <i>erythrocerus</i>	126
— <i>smaragdina</i>	5	— <i>aurotinctus</i>	111	— <i>eudemus</i>	284
— <i>sommeri</i>	9	— <i>azureipennis</i>	129	— <i>eueides</i>	107
— <i>taretana</i>	259	— <i>bicolor</i>	124	— <i>evanescens</i>	108
— <i>tenuilineata</i>	10	— <i>bicolor</i>	286	— <i>femoralis</i>	119
— <i>togata</i>	12	— <i>biovatus</i>	106	— <i>feronioides</i>	106
— <i>tortuosa</i>	11	— <i>biovatus</i>	109, 279	— <i>forreri</i>	109
— <i>trifasciata</i>	11	— <i>bispinis</i>	109	— <i>fragilis</i>	113
— <i>unicolor</i>	15, 260	— <i>brachyderus</i>	112	— <i>fratellus</i>	126
— <i>vasseleti</i>	13	— <i>brullei</i>	119	— <i>gracilis</i>	120
— <i>Vasseletii</i>	13	— <i>brullei</i>	123	— <i>grandicollis</i>	284
— <i>ventralis</i>	15	— <i>brunnipennis</i>	103	— <i>gratus</i>	105
— <i>viatica</i>	5, 259	— <i>buckleyi</i>	122	— <i>gratus</i>	111
— <i>viatica</i>	6	— <i>cæruleomarginatus</i>	123	— <i>guatemalensis</i>	103
— <i>virginica</i>	3	— <i>cæruleomarginatus</i> .. 122, 124		— <i>hemicyclis</i>	127
— <i>viridisticta</i>	14, 260	— <i>cæruleus</i>	114	— <i>horni</i>	112
— <i>vulturina</i>	256	— <i>cæruleus</i>	285	— <i>ignicauda</i>	129
— <i>Walkeriana</i>	13	— <i>castanipes</i>	108	— <i>incomis</i>	120
CICINDELIDÆ	1	— <i>castanipes</i>	109	— <i>incommodus</i>	121
CLIVINA	32	— <i>chalconotus</i>	118	— <i>incultus</i>	108
<i>Clivina</i>	33	— <i>chalybeus</i>	129	— <i>inops</i>	128
— <i>adstricta</i>	33	— <i>championi</i>	107	— <i>insignis</i>	124
— <i>bituberculata</i>	32	— <i>chaudoiri</i>	125	— <i>intergeneus</i>	111
— <i>brunnea</i>	33	— <i>chaudoiri</i>	285	— <i>iricolor</i>	129
— <i>brunneipennis</i>	32	— <i>chiriquinus</i>	111	— <i>jalapensis</i>	126
— <i>brunnipennis</i>	32	— <i>chloreus</i>	115	— <i>janthinus</i>	98, 282
— <i>cruciata</i>	32	— <i>chontalensis</i>	122	— <i>lactipes</i>	121
— <i>dentifemorata</i>	33	— <i>chontalensis</i>	285	— <i>lætiusculus</i>	113
— <i>dilutipennis</i>	33	— <i>chrysopterus</i>	124, 286	— <i>lamprotus</i>	118
— <i>distigma</i>	32	— <i>cleantes</i>	285	— <i>lamprotus</i>	117

	Page		Page		Page
<i>Colpodes lebioides</i>	129	<i>Colpodes prostomis</i>	102	<i>Coptodera amazonica</i>	183
— <i>leucoscelis</i>	121	— <i>proteinus</i>	123	— <i>aurata</i>	180
— <i>limbicollis</i>	128	— <i>pterostichoides</i>	102	— <i>championi</i>	180
— <i>lissomus</i>	127	— <i>purpuratus</i>	118	— <i>cloris</i>	182
— <i>longipennis</i>	122	— <i>purpuripennis</i>	129	— <i>cupreotincta</i>	183
— <i>longipes</i>	115	— <i>purulensis</i>	110	— <i>elongata</i>	180
— <i>lucilius</i>	284	— <i>quadridentatus</i>	122	— <i>elongata</i>	181
— <i>lugens</i>	103	— <i>quadrilaterus</i>	128	— <i>fasciato-punctata</i>	185
— <i>lugens</i>	108	— <i>reflexicollis</i>	124	— <i>flavodisca</i>	182
— <i>lyratus</i>	121	— <i>reflexus</i>	125	— <i>flavodisca</i>	183
— <i>lyrophorus</i>	110	— <i>robustus</i>	103	— <i>immaculipennis</i>	182
— <i>macrous</i>	113	— <i>rubidus</i>	113	— <i>lebioides</i>	182
— <i>marginicollis</i>	102	— <i>ruficornis</i>	125	— <i>megalops</i>	181
— <i>megalops</i>	116	— <i>rufulus</i>	286	— <i>obscura</i>	181
— <i>melanius</i>	117	— <i>rutilans</i>	284	— <i>picea</i>	182
— <i>melanocnemis</i>	116	— <i>scabricollis</i>	126	— <i>pœcila</i>	183
— <i>melanocnemis</i>	110	— <i>semiopacus</i>	106	— <i>robusta</i>	296
— <i>metallicus</i>	125	— <i>semiopacus</i>	105, 107	— <i>schaumi</i>	180
— <i>metallicus</i>	126, 127, 128, 284	— <i>semirufus</i>	128	— <i>scintillans</i>	181
— <i>minimus</i>	283	— <i>semirufus</i>	129	— <i>signata</i>	177
— <i>mœstus</i>	103	— <i>severus</i>	107	— <i>spinipennis</i>	181
— <i>mœstus</i>	104, 105, 106, 109, 283	— <i>sexfoveolatus</i>	115	— <i>tesselata</i>	183
— <i>monachus</i>	115	— <i>sexpunctatus</i>	125	— <i>tessellata</i>	183
— <i>morosus</i>	105	— <i>simplicior</i>	104	— <i>tripartita</i>	182, 242
— <i>nebrioides</i>	110	— <i>simplicior</i>	105, 283	— <i>unicolor</i>	181
— <i>neglectus</i>	104, 284	— <i>sinuosus</i>	117	— <i>variegata</i>	180
— <i>niger</i>	117	— <i>sphodroides</i>	109	COPTODERINÆ	175
— <i>nigrita</i>	98	— <i>sphodroides</i>	121	<i>Cordistes</i>	163
— <i>nitidus</i>	120	— <i>spinifer</i>	116	— <i>arcuatus</i>	164
— <i>nitidus</i>	121	— <i>spinipennis</i>	109	— <i>bicinctus</i>	163
— <i>nugax</i>	104	— <i>striatopunctatus</i>	113	<i>Cratocara</i>	74
— <i>nugax</i>	105, 283, 284	— <i>stricticollis</i>	102, 282	CRATOCERINÆ	90
— <i>nyctimus</i>	282	— <i>subauratus</i>	113	CRATOCERUS	90
— <i>obscorellus</i>	122	— <i>subcyaneus</i>	118	<i>Cratocerus sulcatus</i>	91
— <i>obscurus</i>	121	— <i>suffectus</i>	104	<i>Cratognathus</i>	74
— <i>olivaceus</i>	113	— <i>suffectus</i>	283	<i>Crossocrepis</i>	267
— <i>opalescens</i>	117	— <i>superbus</i>	123	CRYPTOBATIS	201
— <i>orbicollis</i>	125	— <i>tenuicornis</i>	114	<i>Cryptobatis</i>	190, 200, 215
— <i>orbicollis</i>	127, 128	— <i>teter</i>	107	— <i>chontalensis</i>	202
— <i>pallidipes</i>	116	— <i>transfuga</i>	103	— <i>inæqualis</i>	202
— <i>parviceps</i>	126	— <i>transfuga</i>	282, 283	— <i>janthoptera</i>	201
— <i>pectoralis</i>	124	— <i>transversicollis</i>	123	— <i>janthoptera</i>	202
— <i>petilus</i>	283	— <i>tristis</i>	103	— <i>laticollis</i>	202, 215
— <i>phæolomus</i>	125	— <i>unilobatus</i>	117	<i>Ctenodactyla</i>	158
— <i>picicornis</i>	123	— <i>validus</i>	119	CTENODACTYLINÆ	158
— <i>planicollis</i>	120	— <i>validus</i>	118	CTENOSTOMA	17, 261
— <i>politus</i>	124	— <i>variabilis</i>	119	<i>Ctenostoma ibidion</i>	18, 261
— <i>porrectus</i>	112	— <i>variabilis</i>	116, 118, 120	— <i>insigne</i>	18
— <i>princeps</i>	124, 286	— <i>violaceipennis</i>	119	— <i>læticolor</i>	18
— <i>pristonychoides</i>	107	— <i>viridans</i>	285	— <i>macilentum</i>	18
— <i>procephalus</i>	106	— <i>viridiauratus</i>	124	— <i>maculicorne</i>	18
— <i>procephalus</i>	107	— <i>zunilensis</i>	120	— <i>metallicum</i>	18
— <i>prolixus</i>	110	— <i>zunilensis</i>	285	— <i>sallæi</i>	18
— <i>prolongatus</i>	114	COPTODERA	180, 296	— <i>sallæi</i>	18
— <i>propinquus</i>	119	<i>Coptodera</i>	183, 184	— <i>sigma</i>	18
— <i>prostomis</i>	101	— <i>acutipennis</i>	181	CURTONOTUS	75

	Page		Page		Page
<i>Curtonotus</i>	76	<i>Didymochæta parvula</i>	190	<i>Dyschromus</i>	84
— <i>depareus</i>	76	DIPLOHARPUS	133	<i>Dyscolus</i>	100
— <i>putzeyi</i>	76	<i>Diploharpus exstriatus</i>	133	— <i>acuminatus</i>	115
— <i>substriatus</i>	76	— <i>lævissimus</i>	134	— <i>anchomenoïdes</i>	103
<i>Cychnrus</i>	263	— <i>mexicanus</i>	134	— <i>cæruleomarginatus</i>	123
— <i>elevatus</i>	263	— <i>perpolitus</i>	134	— <i>chalcopterus</i>	118
— <i>excavatus</i>	263	— <i>striolatus</i>	134	— <i>cupripennis</i>	110, 119
— <i>mexicanus</i>	263	DISCODERUS	62, 275	— <i>cyanipennis</i>	110
<i>Cyclosomus</i>	174	<i>Discoderus</i>	58, 64, 274	— <i>cyanonotus</i>	122
<i>Cylindronotum</i>	199	— —	276	— <i>nebrioides</i>	110
— <i>æneum</i>	199	— <i>acinopoides</i>	275	— <i>pallidipes</i>	116
CYMINDINÆ	186	— <i>amblyderus</i>	275	— <i>purpuratus</i>	118
CYMINDIS	188, 296	— <i>arcuatus</i>	63	— <i>variabilis</i>	119
<i>Cymindis</i>	168, 226	— <i>arcuatus</i>	62	EGA	157
— — ?	188	— <i>curripes</i>	64	<i>Ega fuscoænea</i>	158
— <i>atrata</i>	187	— <i>cyanelhus</i>	63	— <i>lætula</i>	157
— <i>cribricollis</i>	188	— <i>difformipes</i>	63	— <i>sallæi</i>	157
— <i>elegans</i>	296	— <i>difformipes</i>	64, 274, 275	— <i>Sallei</i>	157
— <i>laticollis</i>	296	— <i>distortus</i>	63, 275	<i>Elaphrus minimus</i>	137
— <i>nigrita</i>	187	— <i>distortus</i>	274	<i>Elliotia</i>	216
— <i>pallidipes</i>	189	— <i>impotens</i>	276	ELLIPTOLEUS	97
— <i>parallela</i>	189	— <i>impotens</i>	274	<i>Elliptoleus acutesculptus</i>	98
— <i>planipennis</i>	296	— <i>melanthus</i>	275	— <i>crepericornis</i>	98
— <i>punctigera</i>	296	— <i>parallelus</i>	275	— <i>curtululus</i>	97
— <i>uniseriata</i>	296	— <i>piger</i>	63	— <i>curtululus</i>	98
— <i>viridicollis</i>	202	— <i>piger</i>	274, 275	— <i>flavipes</i>	97
— <i>viridis</i>	202	— <i>pulvinatus</i>	275	— <i>flavipes</i>	98
CYRTOLAUS	99	— <i>tenuimargo</i>	63	— <i>vixstriatus</i>	97
<i>Cyrtolaus</i>	102, 277, 278	— <i>tristis</i>	63	— <i>vixstriatus</i>	98
— <i>furculifer</i>	99	<i>Discolus nitidus</i>	120	<i>Emydopterus</i>	27
— <i>furculifer</i>	100	<i>Disphæricus</i>	39	— <i>rotundipennis</i>	29
— <i>lobipennis</i>	100	DISTICHUS	29, 264	<i>Enaphorus</i>	166
— <i>lobipennis</i>	102, 278	<i>Distichus gagatinus</i>	30	<i>Eripus</i>	39
— <i>spinicauda</i>	100	— <i>lacordairei</i>	30	— <i>scydmaenoides</i>	40
<i>Daptus</i>	73, 277	— <i>septentrionalis</i>	30, 264	<i>Eucheila</i>	168
<i>Demetrius</i>	191	— <i>trivialis</i>	30	EUCHEILINÆ	168
<i>Dianchomena</i>	239, 240, 243	<i>Drepanus</i>	255	EUCHROA	84
— <i>abdominalis</i>	240	<i>Drimostoma mexicanum</i>	134	<i>Euchroa dimidiata</i>	85
— <i>anchorifera</i>	239	DROMIUS	193	— <i>flohri</i>	85
— <i>humeroguttata</i>	239	<i>Dromius</i>	191	— <i>nitidipennis</i>	85
— <i>intermedia</i>	240	— <i>decempunctatus</i>	96	— <i>sallæi</i>	85
— <i>leptodera</i>	299	— <i>flohri</i>	193	— <i>sallei</i>	85
— <i>rugatifrons</i>	239	— <i>flohri</i>	194	EUPHORTICUS	156, 293
— <i>vicina</i>	239	— <i>glabratus</i>	192	<i>Euphorticus æneolus</i>	156, 157
<i>Diaphoromerus</i>	68	— <i>guatemalensis</i>	194	— <i>leucoscelis</i>	156
DIAPHORUS	166, 295	— <i>longulus</i>	192	— <i>lucidus</i>	293
<i>Diaphorus elegans</i>	295	— <i>multiguttatus</i>	184	— <i>pubescens</i>	156
— <i>högei</i>	166	— <i>piceus</i>	193	— <i>pubescens</i>	157, 293
— <i>tenuicornis</i>	166	<i>Drypta</i>	163	— <i>quadrinotatus</i>	156, 293
DICÆLUS	48	DRYPTINÆ	164	<i>Euplynes</i>	158
<i>Dicælus flohri</i>	49, 269	DYSCHIRIUS	31, 265	EUPROCTUS	194
— <i>lævipennis</i>	269	<i>Dyschirius</i>	32, 34	<i>Euproctus</i>	196, 211, 212
<i>Didetus</i>	216	— <i>analis</i>	265	— <i>abjectus</i>	196
<i>Didymochæta</i>	188, 189	— <i>globosus</i>	31	— <i>deliciosus</i>	195
— <i>hamigera</i>	190	— <i>guatemalensis</i>	31	— <i>fenestrellus</i>	194
		— <i>planiusculus</i>	31		

- | | Page | | Page | | Page |
|-------------------------------------|---------------|-------------------------------------------|---------|-----------------------------------|----------|
| <i>Euproctus fenestrellus</i> | 195 | <i>Galerita geniculata</i> | 294 | <i>Harpalus cupripennis</i> | 49 |
| — <i>metricus</i> | 194, 195, 196 | — <i>insularis</i> | 165 | — <i>cyanelhus</i> | 51 |
| — <i>ornatellus</i> | 195 | — <i>jelskyi</i> | 294 | — <i>ellipsis</i> | 271 |
| — <i>quadrinus</i> | 195 | — <i>longicollis</i> | 165 | — <i>faunus</i> | 57 |
| — <i>quadriplagiatus</i> | 194 | — <i>mexicana</i> | 165 | — <i>hebescens</i> | 57 |
| — <i>sigillatus</i> | 196 | — <i>mustelina</i> | 294 | — <i>impotens</i> | 276 |
| — <i>subdeletus</i> | 196 | — <i>nigra</i> | 164 | — <i>irinus</i> | 274 |
| — <i>subdeletus</i> | 197 | — <i>ruficollis</i> | 165 | — <i>liolus</i> | 58 |
| EURYCOLEUS | 185 | — <i>simplex</i> | 164 | — <i>marginicollis</i> | 271 |
| <i>Eurycoleus belti</i> | 186 | — <i>stenodera</i> | 294 | — <i>mexicanus</i> | 57, 271 |
| — <i>fasciato-punctatus</i> | 185 | — <i>thoracica</i> | 165 | — <i>mexicanus</i> | 51 |
| — <i>fasciato-punctatus</i> | 186 | GALLERUCIDIA | 215 | — <i>monilicornis</i> | 89 |
| — <i>macularius</i> | 185 | <i>Gallerucidia championi</i> | 216 | — <i>ocreatus</i> | 50 |
| — <i>octosignatus</i> | 186 | — <i>erotyloides</i> | 215 | — <i>platyderus</i> | 57 |
| — <i>ornatus</i> | 186 | — <i>erotyloides</i> | 216 | — <i>virescens</i> | 50 |
| — <i>tredecim-punctatus</i> | 186 | GALLERUCIDIINÆ | 215 | HELLUOMORPHA | 167 |
| <i>Euryoda</i> | 15 | <i>Geobænus congener</i> | 277 | <i>Helluomorpha</i> | 168 |
| <i>Eurytrichus</i> | 49 | <i>Glyptoderus aurolimbatus</i> | 41 | — <i>ferruginea</i> | 167 |
| <i>Euthenarus</i> | 70 | — <i>chrysopleurus</i> | 41 | — <i>longicollis</i> | 167 |
| EVARTHURUS | 80 | — <i>Guerini</i> | 42 | — <i>mexicana</i> | 167 |
| <i>Evarthrus</i> | 75 | — <i>Menevillei</i> | 42 | HELLUONINÆ | 167 |
| — <i>constrictus</i> | 80 | — <i>validus</i> | 41 | <i>Heteromorpha</i> | 255 |
|
 | | <i>Glyptogaster</i> | 30 | <i>Hexagonia</i> | 158 |
| <i>Feronia</i> | 81, 83 | <i>Glyptogrus</i> | 30 | <i>Hologaster</i> | 30 |
| — <i>anomala</i> | 84 | GLYPTOLENUS | 98, 282 | <i>Hololissus</i> | 90 |
| — <i>brachyptera</i> | 81 | <i>Glyptolenus ater</i> | 99 | <i>Homalomorpha</i> | 90 |
| — <i>decora</i> | 280 | — <i>ater</i> | 282 | HYBOPTERA | 200 |
| — <i>extensicollis</i> | 93 | — <i>janthinus</i> | 282 | <i>Hyboptera</i> | 201 |
| — <i>funesta</i> | 103 | — <i>latitarsis</i> | 282 | — <i>tuberculata</i> | 200 |
| — <i>lugens</i> | 103 | — <i>rugicollis</i> | 98 | <i>Hyperion</i> | 88 |
| — <i>mæsta</i> | 103 | — <i>rugicollis</i> | 282 | — <i>schröteri</i> | 81 |
| — <i>monacha</i> | 115 | — <i>transformatus</i> | 99 | HYPHERPES | 81 |
| — <i>obsoleta</i> | 95 | <i>Goniotropis</i> | 25 | <i>Hypherpes</i> | 88 |
| — <i>opaca</i> | 103 | GYNANDROPUS | 65, 276 | — <i>adoxus</i> | 82 |
| — <i>placida</i> | 281 | <i>Gynandropus</i> | 64 | — <i>ampliatus</i> | 82 |
| — <i>punctiformis</i> | 95 | — | 276 | — <i>angustus</i> | 81, 82 |
| — <i>serratipes</i> | 81 | — <i>agonoides</i> | 65 | — <i>brachypterus</i> | 81 |
| — <i>submarginata</i> | 83 | — <i>agonoides</i> | 276 | — <i>longissimus</i> | 81 |
| <i>Ferus</i> | 175 | — <i>cyclogonus</i> | 276 | — <i>tæniola</i> | 82 |
| — <i>quadricollis</i> | 176 | — <i>hylacis</i> | 276 | <i>Hypolithus</i> | 65, 66 |
|
 | | — <i>intermedius</i> | 65 | — <i>paganus</i> | 66 |
| GALERITA | 164, 294 | — <i>lævicollis</i> | 276 |
 | |
| <i>Galerita</i> | 163, 166 | — <i>mexicanus</i> | 65 | <i>Ictinus</i> | 25 |
| — <i>æquinoctialis</i> | 164 | — <i>mexicanus</i> | 276 | <i>Illaphanus</i> | 145 |
| — <i>æquinoctialis</i> | 165 |
 | | INNA | 168 |
| — <i>americana</i> | 294 | <i>Habroscelis obliquata</i> | 11 | <i>Inna costulata</i> | 168 |
| — <i>atripes</i> | 165 | HARPALINÆ | 56 | IREZIA | 17 |
| — <i>beauvoisi</i> | 165 | HARPALUS | 56, 271 | <i>Iresia boucardi</i> | 17 |
| — <i>beauvoisii</i> | 165 | <i>Harpalus</i> .. 57, 58, 62, 64, 65, 71 | | — <i>boucardii</i> | 17 |
| — <i>bicolor</i> | 165 | — | 271 | — <i>pulchra</i> | 17 |
| — <i>boucardi</i> | 165 | — <i>æneus</i> | 58 | ITHYTOLUS | 277 |
| — <i>boucardii</i> | 165 | — <i>æquilatus</i> | 49 | <i>Ithytolus anomalus</i> | 278 |
| — <i>championi</i> | 294 | — <i>agonoderus</i> | 51 | — <i>lobipennis</i> | 278 |
| — <i>elegans</i> | 164 | — <i>alienus</i> | 57 |
 | |
| — <i>erythrodera</i> | 165 | — <i>amputatus</i> | 58 | LACHNOPHORINÆ | 152 |
| — <i>forreri</i> | 165 | — <i>anthracinus</i> | 52 | LACHNOPHORUS | 153, 293 |

	Page		Page		Page
<i>Lachnophorus</i>	156, 157	<i>Lebia callizona</i>	227	<i>Lebia maya</i>	235
— <i>angusticollis</i>	293	— <i>callizona</i>	228	— <i>melantho</i>	238
— <i>axillaris</i>	156	— <i>centromaculata</i>	232	— <i>melantho</i> , var. <i>macra</i>	239
— <i>corrosus</i>	154	— <i>centromaculata</i>	236, 237	— <i>mesostigma</i>	242
— <i>elegantulus</i>	155	— <i>chalybe</i>	237	— <i>microtes</i>	225
— <i>femoralis</i>	155	— <i>chalybe</i>	238	— <i>mirabilis</i>	238
— <i>guttulatus</i>	153, 293	— <i>charilla</i>	223	— <i>miradora</i>	232
— <i>humeralis</i>	153	— <i>charina</i>	228	— <i>mæsta</i>	223
— <i>humeralis</i>	156	— <i>chelostigma</i>	232	— <i>neanthe</i>	231
— <i>juvencus</i>	155	— <i>chiriquensis</i>	234	— <i>nemoralis</i>	230, 234
— <i>lævicollis</i>	156	— <i>chiriquensis</i>	230, 235	— <i>nigriceps</i>	233
— <i>leucoscelis</i>	156	— <i>chloroptera</i>	220	— <i>nigriceps</i>	236
— <i>longulus</i>	155	— <i>chlorotica</i>	233	— <i>nigripennis</i>	226
— <i>maculatus</i>	154	— <i>clio</i>	229	— <i>nigriventris</i>	220
— <i>niger</i>	156	— <i>coelina</i>	224	— <i>nigrosignata</i>	241
— <i>pictipennis</i>	154, 293	— <i>coelina</i>	225	— <i>oliviella</i>	226
— <i>pubescens</i>	156	— <i>coptoderina</i>	242	— <i>oliviella</i>	227
— <i>sculptifrons</i>	155	— <i>corcula</i>	236, 299	— <i>pleurodera</i>	222
— <i>semirufus</i>	154	— <i>cordelia</i>	236	— <i>pœcilura</i>	227
— <i>subauratus</i>	154	— <i>croceicollis</i>	225	— <i>pumila</i>	224, 225
— <i>tessellatus</i>	155	— <i>croceicollis</i>	227	— <i>quadricolor</i>	222
LEBIA	222, 299	— <i>cursor</i>	238	— <i>quadricolor</i>	240
<i>Lebia</i>	216, 236, 237, 239, 240,	— <i>cyanea</i>	223	— <i>quadrinotata</i>	236, 244
	243, 298	— <i>cymindoides</i>	226	— <i>quadriplagiata</i>	241
— ?	243, 299	— <i>discopicta</i>	237	— <i>quadrivittata</i>	241
— <i>abdominalis</i>	240	— <i>ditissima</i>	239	— <i>quinquenotata</i>	228
— <i>acutipennis</i>	181	— <i>dugesii</i>	224	— <i>retusa</i>	227
— <i>ægra</i>	230	— <i>duillia</i>	230	— <i>rhodope</i>	231
— <i>affinis</i>	222	— <i>extrema</i>	241	— <i>rhodope</i>	243
— <i>agnata</i>	225	— <i>fallax</i>	174	— <i>rufilia</i>	231
— <i>agnata</i>	223, 226	— <i>fimbriolata</i>	226	— <i>rufosutura</i>	220
— <i>amabilis</i>	241	— <i>fimbriolata</i>	227	— <i>rugatifrons</i>	239
— <i> analis</i>	237	— <i>flammea</i>	223	— <i>scalpta</i>	230
— <i>anchora</i>	229	— <i>flavovittata</i>	240	— <i>scitula</i>	233
— <i>anchora</i>	230, 231, 239	— <i>flohri</i>	227	— <i>scutella</i>	241
— <i>anchorifera</i>	239	— <i>fusciceps</i>	236	— <i>sellata</i>	245
— <i>angusticollis</i>	198	— <i>gaudichaudi</i>	228	— <i>sinanja</i>	238
— <i>annulipennis</i>	233	— <i>glabrata</i>	192	— <i>smaragdula</i>	223
— <i>apicalis</i>	222	— <i>goniessa</i>	225	— <i>soror</i>	232
— <i>arietis</i>	232	— <i>goniessa</i>	227	— <i>striaticeps</i>	230
— <i>atriceps</i>	298	— <i>granaria</i>	242	— <i>striatifrons</i>	223
— <i>atriventris</i>	220	— <i>heraldica</i>	242	— <i>subrugosa</i>	230
— <i>biannulata</i>	234	— <i>hilaris</i>	241	— <i>subrugosa</i>	231
— <i>biannulata</i>	235	— <i>histrionica</i>	240	— <i>sulcipennis</i>	239
— <i>bicineta</i>	228	— <i>humero-guttata</i>	239	— <i>tolteca</i>	235
— <i>bifasciata</i>	227, 228	— <i>ignita</i>	224	— <i>trivittata</i>	216
— <i>biforis</i>	234	— <i>incohærens</i>	233	— <i>tuberculata</i>	200
— <i>bipunctata</i>	228	— <i>incommoda</i>	230	— <i>variegata</i>	229
— <i>bitæniata</i>	228	— <i>inconstans</i>	235	— <i>variegata</i>	230, 242
— <i>bivittata</i>	241	— <i>intermedia</i>	240	— <i>vicina</i>	239
— <i>bivitticollis</i>	233	— <i>interrupta</i>	229	— <i>violaceipennis</i>	223
— <i>bonellii</i>	229	— <i>latifascia</i>	233	— <i>viridis</i>	223
— <i>brachinoides</i>	222	— <i>limbicollis</i>	222	— <i>viridis</i>	224, 225, 226, 227
— <i>brachinoides</i>	223	— <i>longiloba</i>	235	— <i>vittata</i>	240
— <i>callope</i>	231	— <i>macularia</i>	185	— <i>xanthogona</i>	224
— <i>calliparis</i>	240	— <i>marginicollis</i>	222	— <i>xanthogona</i>	225

	Page
<i>Lebia xanthopleura</i>	233
— <i>xanthopleura</i>	239
— <i>yucatanana</i>	233
— <i>zeta</i>	237
<i>Lebidia</i>	215
LEBIINÆ	218
<i>Lecanomerus</i>	67
<i>Leirus</i>	75
<i>Leja cognatum</i>	148
LELIS	185
<i>Lehis</i>	183
— <i>bicolor</i>	185
— <i>insculpta</i>	185
— <i>rufipes</i>	185
LEPTOTRACHELUS	158
<i>Leptotrachelus</i>	99
— <i>dilaticollis</i>	160
— <i>dorsalis</i>	158, 159
— <i>fulvus</i>	159
— <i>mexicanus</i>	158
— <i>mexicanus</i>	159
— <i>panamensis</i>	159
— <i>planus</i>	159
— <i>puncticollis</i>	159
— <i>suturalis</i>	160
— <i>trifasciata</i>	158
LIA	243
<i>Lia</i>	215, 236
— <i>championi</i>	243
— <i>championi</i>	244
— <i>decolor</i>	245
— <i>duodecim-punctata</i>	243
— <i>elegans</i>	243
— <i>femorata</i>	228
— <i>melanocrepis</i>	244
— <i>ocelligera</i>	244
— <i>quadriannulata</i>	244
— <i>quadriannulata</i>	215
— <i>quadrinotata</i>	244
— <i>sellata</i>	245
— <i>testacea</i>	245
— <i>zunilensis</i>	244
LICININÆ	48
LORICERA	24
<i>Loricera rotundicollis</i>	24
LORICERINÆ	24
LOXANDRUS	86, 278
<i>Loxandrus</i>	87
— <i>infimus</i>	87
— <i>infimus</i>	278, 279
— <i>opaculus</i>	279
— <i>sculptilis</i>	278
— <i>tetrastigma</i>	87
— <i>unistigma</i>	87
<i>Loxocrepis</i>	100
LOXOPEZA	218, 298
<i>Loxopeza atriceps</i>	298

	Page
<i>Loxopeza atriventris</i>	220
— <i>chloroptera</i>	220
— <i>costulata</i>	219
— <i>cyane</i>	220
— <i>eburata</i>	221
— <i>exarata</i>	221
— <i>grandis</i>	219, 220
— <i>guatemalena</i>	219
— <i>högei</i>	218
— <i>majuscula</i>	220
— <i>melanocephala</i>	221
— <i>obliquata</i>	221
— <i>rufolimbata</i>	221
— <i>rufosutura</i>	220
— <i>translucens</i>	219
— <i>tricolor</i>	218, 219
— <i>urania</i>	219
— <i>xanthogaster</i>	218
— <i>xanthogaster</i>	219
— <i>yoloensis</i>	221
LYMNASTIS	282
<i>Lymnastis capito</i>	287
<i>Macracanthus</i>	174
— <i>unicolor</i>	175
<i>Malisus</i>	188, 189
MASOREINÆ	174
MASOREUS	174, 295
<i>Masoreus piceolus</i>	175, 295
— <i>unicolor</i>	175
<i>Megacephala affinis</i>	3
— <i>angustata</i>	3
— <i>carolina</i>	1
— <i>geniculata</i>	2, 3
— <i>impressa</i>	3
— <i>Lebasii</i>	3
— <i>mexicana</i>	1
— <i>sobrina</i>	2
— <i>violacea</i>	3
— <i>virginica</i>	3
<i>Melanotus</i>	74
— <i>capitatus</i>	74
— <i>erro</i>	74
<i>Melisodera</i>	88
MENIDIUS	196
<i>Menidius circumseptus</i>	197
— <i>faviger</i>	197
— <i>formosus</i>	197
— <i>incultus</i>	197
— <i>timidus</i>	197
<i>Metabletus</i>	191, 192
— <i>truncatellus</i>	192
METABOLA	221, 298
<i>Metabola rufopyga</i>	221
— <i>rufopyga</i>	298
— <i>vivida</i>	298
<i>Metallosomus</i>	100

	Page
MICRAGRA	199
<i>Micragra ænea</i>	199
— <i>ænea</i>	200
— <i>reichei</i>	200
<i>Mimodromius</i>	202
MIOPTACHYS	144
<i>Mioptachys brevisculus</i>	144
— <i>oopteroides</i>	144
— <i>trechoides</i>	144
MIZOTRECHUS	134
<i>Mizotrechus</i>	133
— <i>laevigatus</i>	135
— <i>novemstriatus</i>	134
— <i>novemstriatus</i>	133
<i>Molobrus</i>	27
— <i>cardioderus</i>	28
— <i>cordicollis</i>	28
— <i>intermedius</i>	29
— <i>metallicus</i>	29
— <i>purpuratus</i>	29
— <i>Rodriguezi</i>	29
— <i>splendidus</i>	29
— <i>subangulatus</i>	29
MORIO	89
<i>Morio</i>	88
— <i>æquatorius</i>	89
— <i>cordatus</i>	89
— <i>georgiæ</i>	89
— <i>lafertei</i>	89
— <i>monilicornis</i>	89
— <i>simplex</i>	89
— <i>spiniger</i>	89
MORIONINÆ	88
MORIOSOMUS	89
<i>Moriosomus</i>	88
— <i>sylvestris</i>	89
<i>Mouhotia</i>	27
<i>Myrmecilla</i>	17
<i>Mystropomus</i>	24
<i>Nemaglossa</i>	67
<i>Nematotarsus</i>	173
— <i>fallax</i>	174
NEMOTARSINÆ	173
NEMOTARSUS	173
<i>Nemotarsus</i>	171
— <i>fallax</i>	174
— <i>fallax</i>	173
— <i>limbicollis</i>	173
— <i>limbicollis</i>	174
— <i>rhombifer</i>	173
— <i>rhombifer</i>	174
<i>Nestra</i>	135
<i>Notaphus</i>	150
— <i>flohri</i>	150
— <i>placitum</i>	151
— <i>spretum</i>	150

	Page		Page		Page
NOTIOBIA.....	52, 270	Odontocheila salvini.....	16	<i>Oodes pallipes</i>	268
Notiobia —.....	271	<i>Omaseus validus</i>	41	— <i>quatuordecimstriatus</i>	268
— <i>æquata</i>	54	<i>Omiastus</i>	100	— <i>striatellus</i>	268
— <i>championi</i>	54	<i>Omoiotelus</i>	215	— <i>tibialis</i>	46
— <i>chiriquensis</i>	270	OMOPHRON.....	19	<i>Oodiellus</i>	269
— <i>concolor</i>	53	<i>Omophron gratus</i>	19	— <i>mexicanus</i>	269
— <i>concolor</i>	54, 270	— <i>oblongiusculum</i>	19	OODINÆ.....	45
— <i>cupreola</i>	54	— <i>oblongiusculus</i>	19	<i>Oodinus</i>	47, 269
— <i>disparilis</i>	56	— <i>sphaericum</i>	19	— <i>piceus</i>	47, 269
— <i>incerta</i>	53	— <i>sphaericus</i>	19	<i>Oosoma</i>	67
— <i>jucunda</i>	270	OMOPHRONINÆ.....	19	<i>Ophryodactylus</i>	100
— <i>leiroides</i>	54	ONOTA.....	198, 297	— <i>æquinotialis</i>	118
— <i>limbipennis</i>	56	<i>Onota</i>	200, 201	OPHRYOGASTER.....	83
— <i>melæna</i>	54, 270	— <i>angulicollis</i>	198	<i>Ophryogaster</i>	86
— <i>obscura</i>	53	— <i>angulicollis</i>	297	— <i>anomalus</i>	84
— <i>pallipes</i>	53	— <i>bicolor</i>	198	— <i>flohri</i>	84
— <i>parilis</i>	55	— <i>fulvella</i>	297	<i>Ophryognathus</i>	174
— <i>rana</i>	55	— <i>tenuicincta</i>	201	<i>Orthomus</i>	86
— <i>rufipalpis</i>	55	ONYPTERYGIA.....	130, 286	OTOGLOSSA.....	198
— <i>similis</i>	53	<i>Onypterygia</i>	278	<i>Otoglossa</i>	200
— <i>sinuessa</i>	56	— <i>æneipennis</i>	132	— <i>cælestina</i>	198
— <i>subaurata</i>	53, 54	— <i>angustata</i>	132	— <i>marginella</i>	199
— <i>umbrata</i>	55	— <i>apicalis</i>	131	— <i>obscura</i>	199
— <i>umbrata</i>	271	— <i>championi</i>	130	— <i>rufitarsis</i>	198
— <i>umbrifera</i>	271	— <i>chrysura</i>	131	— <i>rufitarsis</i>	199
— <i>virens</i>	53	— <i>cyanea</i>	132	— <i>terminalis</i>	199
NOTIOPHILINÆ.....	19	— <i>cyanea</i>	286	OXYCHEILA.....	4
NOTIOPHILUS.....	19	— <i>famini</i>	131	<i>Oxycheila</i>	3
<i>Notiophilus semiopacus</i>	20	— <i>famini</i>	286	— <i>polita</i>	4
— <i>specularis</i>	19	— <i>faminii</i>	131	OXYDREPANUS.....	31, 265
<i>Nycteis</i>	296	— <i>fulgens</i>	131	<i>Oxydrepanus mexicanus</i>	31, 265
OCHROPISUS.....	176	— <i>fulgipennis</i>	131	OXYGONIA.....	4
<i>Ochropisus bembidioides</i>	176	— <i>höpferi</i>	130	<i>Oxygonia boucardi</i>	4
— <i>caudalis</i>	176	— <i>humilis</i>	131	OZÆNA.....	25
<i>Ochthozetus</i>	136	— <i>iris</i>	130	<i>Ozæna brevicornis</i>	25
<i>Odacantha</i>	152	— <i>iris</i>	132	— <i>cyanipennis</i>	27
— <i>bifasciata</i>	163	— <i>longispinis</i>	132	— <i>cyanoptera</i>	27
ODACANTHINÆ.....	160	— <i>pallidipes</i>	132	— <i>filiformis</i>	26
ODONTOCHEILA.....	15, 260	— <i>pusilla</i>	133	— <i>mexicana</i>	27
<i>Odontocheila</i>	17	— <i>quadriscopiosa</i>	130	— <i>verticalis</i>	25
— <i>cayennensis</i>	17	— <i>rubida</i>	286	OZÆNINÆ.....	24
— <i>championi</i>	16	— <i>sallæi</i>	130	<i>Pachymorphus</i>	83
— <i>chiriquina</i>	17	— <i>sallæi</i>	130	PACHYTELES.....	25, 263
— <i>cinctula</i>	16	— <i>thoreyi</i>	131	<i>Pachyteles</i>	24
— <i>cinctula</i>	260, 261	— <i>tricolor</i>	131	— <i>bacillus</i>	26
— <i>exilis</i>	260	— <i>valdestriata</i>	286	— <i>biguttatus</i>	263
— <i>exilis</i>	261	— <i>viridipennis</i>	131	— <i>cyanipennis</i>	27
— <i>iodopleura</i>	16	OODES.....	45, 267	— <i>excisus</i>	26
— <i>iodopleura</i>	261	<i>Oodes</i>	46, 47, 48, 52	— <i>filiformis</i>	26
— <i>leptalis</i>	15	— <i>americanus</i>	45	— <i>fuliginellus</i>	26
— <i>mexicana</i>	16	— <i>chlorophanus</i>	46	— <i>funcki</i>	25
— <i>nicaraguensis</i>	16	— <i>duodecimstriatus</i>	46	— <i>Funckii</i>	25
— <i>nicaraguensis</i>	17	— <i>elegans</i>	47	— <i>inflatus</i>	264
— <i>nietii</i>	16	— <i>femorals</i>	46	— <i>longicornis</i>	263
— <i>quadrina</i>	16	— <i>humilis</i>	46	— <i>marginicollis</i>	263
		— <i>mexicanus</i>	45, 267		

	Page		Page		Page
<i>Pacheteles mexicana</i>	27	<i>Pelmatellus nitescens</i>	68	<i>Philopheuga subcordata</i>	202
— <i>mexicanus</i>	27	— <i>obtusus</i>	68	— <i>viridicollis</i>	202, 297
— <i>mexicanus</i>	263	— <i>stenolophoides</i>	68	— <i>viridicollis</i>	298
— <i>oxyomus</i>	27	— <i>vexator</i>	69	PHLÆOTHERATES	175
— <i>porrectus</i>	25	PENTAGONICA	216	<i>Phlæotherates</i>	176
— <i>punctulatus</i>	26	<i>Pentagonica albipes</i>	218	— <i>quadricollis</i>	176
— <i>seriatoporus</i>	26, 264	— <i>bicolor</i>	217	PHLÆOXENA.....	176, 295
— <i>verticalis</i> ..	25	— <i>bifasciata</i>	216	<i>Phlæoxena chiriquina</i>	177
— <i>verticalis</i>	26	— <i>bifasciata</i>	217	— <i>geniculata</i>	178
PANAGÆINÆ	40	— <i>flavipes</i>	218	— <i>geniculata</i>	177
PANAGÆUS	40, 265	— <i>gonostigma</i>	216	— <i>graphiptera</i>	177, 295
<i>Panagæus mexicanus</i>	41	— <i>gonostigma</i>	217	— <i>högei</i>	178
— <i>panamensis</i>	40	— <i>homostigma</i>	217	— <i>limbicollis</i>	295
— <i>quadrisignatus</i>	41	— <i>maculicornis</i>	217	— <i>megalops</i>	177
— <i>sallæi</i>	41, 265	— <i>omostigma</i>	217	— <i>picta</i>	176
— <i>Sallæi</i>	41	— <i>picea</i>	218	— <i>picta</i>	177
— <i>Thomæ</i>	41	— <i>picticornis</i>	217	— <i>signata</i>	177
<i>Paranomus</i>	100	— <i>semifulva</i>	217	— <i>signata</i>	178
PASIMACHUS.....	27, 264	— <i>trivittata</i>	216	— <i>undata</i>	177
<i>Pasimachus aurocinctus</i>	29	PENTAGONICINÆ	216	— <i>unicolor</i>	177
— <i>californicus</i>	28, 264	PERCOLAUS	80	<i>Phylophuga</i>	202
— <i>cardioderus</i>	28	<i>Percolaus</i>	88	<i>Phymatocephalus</i>	74
— <i>cordicollis</i>	28	— <i>championi</i>	80	— <i>Riehlæi</i>	74
— <i>elongatus</i>	264	<i>Percus</i>	80, 88	PHYSEA	27
— <i>intermedius</i>	29, 264	<i>Pericallus bifasciatus</i>	180	<i>Physea</i>	24
— <i>metallicus</i>	29	PERICOMPSUS	145, 290	— <i>hirta</i>	27
— <i>mexicanus</i>	28	<i>Pericompsus</i>	147, 289	— <i>latipes</i>	27
— <i>punctulatus</i>	28	— <i>ephippiatus</i>	145	<i>Physodera</i>	200
— <i>purpuratus</i>	29	— <i>ephippiatus</i>	146, 289, 290	PIESMUS	83
— <i>quadricollis</i>	28	— <i>histrionellus</i>	290	<i>Piesmus submarginatus</i>	83
— <i>rodriguezæi</i>	29	— <i>immaculatus</i>	289	PINACODERA.....	187, 296
— <i>rotundipennis</i>	29	— <i>jucundus</i>	145	<i>Pinacodera</i> — ?.....	296
— <i>sallæi</i>	28	— <i>longulus</i>	146	— <i>amblygona</i>	187
— <i>Sallæi</i>	28	— <i>quadrillum</i>	290	— <i>angulifera</i>	187
— <i>splendidus</i>	29	— <i>sellatus</i>	290	— <i>atrata</i>	187
— <i>subangulatus</i>	29	— <i>sticticus</i>	146	— <i>basipunctata</i>	188
— <i>tolucanus</i>	28	— <i>sticticus</i>	290	— <i>chalcea</i>	187
— <i>validus</i>	28	PERIGONA	135	— <i>cribrata</i>	188
— <i>viridans</i>	28, 264	<i>Perigona</i>	133	— <i>cribrata</i>	187
<i>Passalus</i>	88	— <i>cordicollis</i>	135	— <i>latiuscula</i>	188
<i>Patrobis</i>	136	— <i>lævigata</i>	135	— <i>nigrita</i>	187
— <i>rufipes</i> ..	108	— <i>lævilateris</i>	135	— <i>platycollis</i>	296
PELECIINÆ	39	PERIGONINÆ	133	— <i>punctigera</i>	296
PELECIUM	39	<i>Peronoscelis</i>	171, 172	<i>Plagiorhytis</i>	160
<i>Pelecium aterrimum</i>	39	— <i>mexicanus</i>	173	<i>Planesus</i>	187
— <i>globipenne</i>	40	<i>Peryphus</i>	150	<i>Platynodes</i>	88
— <i>microphthalmum</i>	40	— <i>mexicanum</i>	148	PLATYNUS	91, 279
— <i>nitidum</i>	39	— <i>submaculatum</i>	149	<i>Platynus</i>	92, 93, 101, 108, 280
— <i>scydmænoides</i>	40	PHEROPSOPHUS	169	— <i>bicolor</i>	280
— <i>subcæcum</i>	40	<i>Pheropsophus æquinotialis</i> ..	169	— <i>bicoloratus</i>	280
— <i>subdentatum</i>	40	— <i>biplagiatus</i>	169	— <i>chihuahuæ</i>	279
— <i>suturale</i>	40	— <i>distinctus</i>	169	— <i>complanatus</i>	280
PELMATELLINÆ	67	<i>Philochthus æneus</i>	147	— <i>dominicensis</i>	97
PELMATELLUS	68	PHILOPHEUGA	202, 297	— <i>euprepes</i>	93
<i>Pelmatellus</i>	67, 69	<i>Philopheuga brachinoides</i>	202	— <i>extensicollis</i>	93
— <i>cyanescens</i>	69	— <i>purpurea</i>	202	— <i>funebris</i>	281

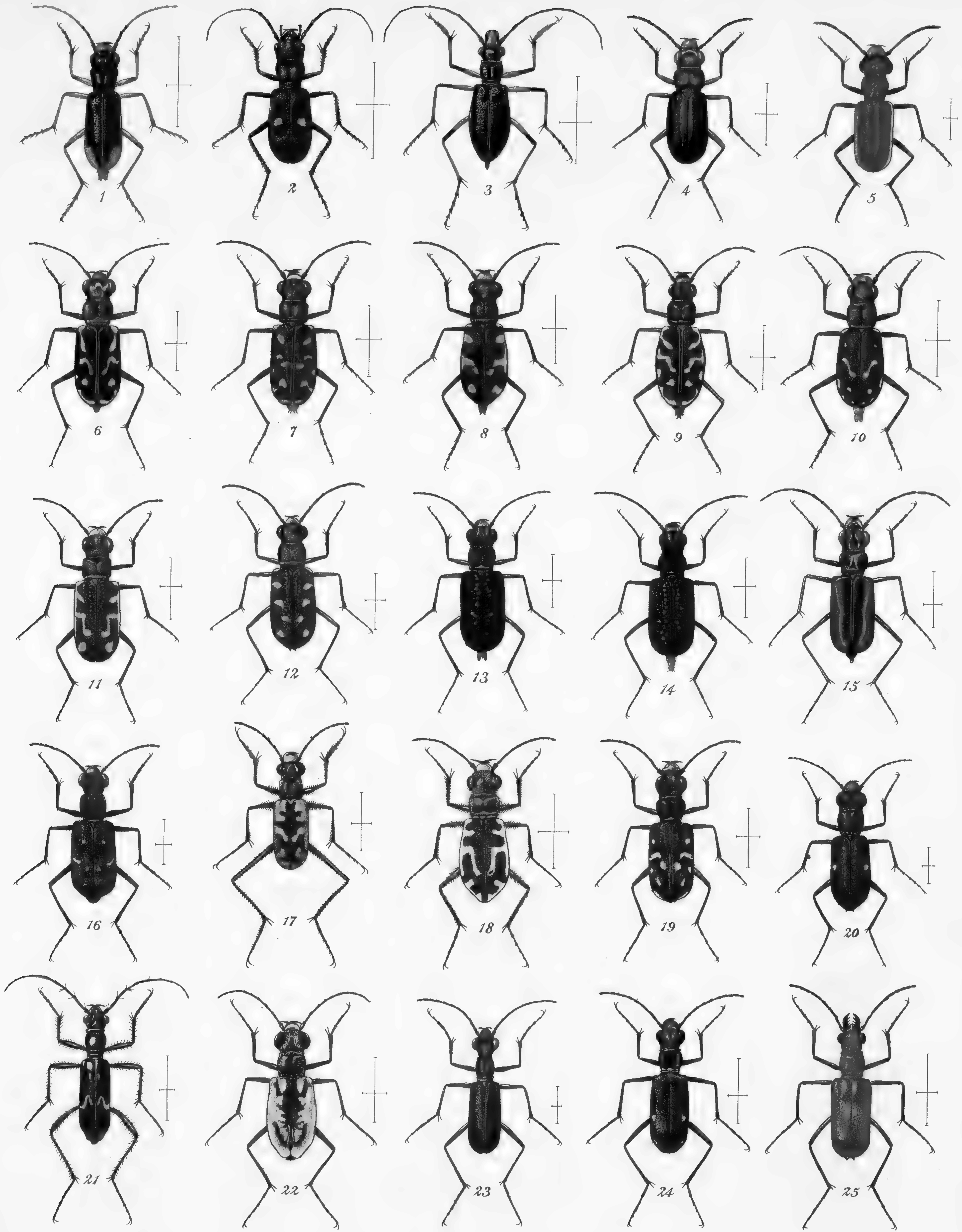
- | | Page | | Page | | Page |
|-----------------------------------------------|---------------|--------------------------------------------------|-------------|--------------------------------------|----------|
| <i>Platynus larvalis</i> | 93 | <i>Pseudabarys substriatus</i> | 86 | <i>Selenophorus amblyderus</i> | 63 |
| — <i>leptodes</i> | 92 | <i>Pseudaptinus</i> | 166 | — <i>arcuatus</i> | 63 |
| — <i>leptodes</i> | 93 | PSEUDOMORPHA | 255 | — <i>assimilis</i> | 61 |
| — <i>leptomorphus</i> | 92 | <i>Pseudomorpha behrensi</i> | 255 | — <i>assimilis</i> | 274 |
| — <i>montezumæ</i> | 92 | — <i>cronkhitei</i> | 255 | — <i>callistichus</i> | 60 |
| — <i>obsoletus</i> | 95 | — <i>pilatei</i> | 255 | — <i>callistichus</i> | 272 |
| — <i>placidus</i> | 281 | PSEUDOMORPHINÆ | 254 | — <i>chalybeus</i> | 273 |
| — <i>texanus</i> | 280 | PSEUDOXYCHEILA | 3 | — <i>chiriquinus</i> | 60 |
| PLATYSMA | 82 | <i>Pseudoxycheila tarsalis</i> | 4 | — <i>chiriquinus</i> | 272 |
| <i>Platysma</i> | 103 | PTEROSTICHINÆ | 80 | — <i>chryses</i> | 272 |
| — <i>crenata</i> | 83 | <i>Pterostichus</i> | 58, 64, 80, | — <i>chryses</i> | 273 |
| — <i>deparca</i> | 76 | 81, 82, 83, 84, 102 | | — <i>crassipes</i> | 274 |
| — <i>oblongopunctata</i> | 83 | — <i>multipunctatus</i> | 102 | — <i>crassiusculus</i> | 62 |
| — <i>tropicalis</i> | 83 | | | — <i>crassiusculus</i> | 274 |
| PLEURACANTHUS | 168 | <i>Rhadine</i> | 91, 92, 93 | — <i>curvipes</i> | 62 |
| <i>Pleuracanthus cribratus</i> | 168 | <i>Rhagocrepis</i> | 158 | — <i>dives</i> | 273 |
| <i>Pleurosoma</i> | 100 | <i>Rhagodactylus</i> | 52 | — <i>flavipes</i> | 61 |
| PLOCHIONUS | 297 | <i>Rhombodera</i> | 216 | — <i>flavipes</i> | 66, 67 |
| <i>Plochionus</i> | 191, 196 | — <i>virgata</i> | 216 | — <i>gagatinus</i> | 61, 274 |
| — <i>Boisdualii</i> | 198 | | | — <i>hepburni</i> | 274 |
| — <i>Bonfilsii</i> | 198 | SCAPHINOTUS | 263 | — <i>irinus</i> | 274 |
| — <i>pallens</i> | 198, 297 | <i>Scaphinotus mexicanus</i> | 263 | — <i>lineatopunctatus</i> | 59 |
| — <i>pallens</i> | 197 | <i>Scaphiodactylus</i> | 100 | — <i>mitis</i> | 61 |
| — <i>valens</i> | 297 | SCARITES | 30, 265 | — <i>multiporus</i> | 272 |
| <i>Pœcilostola</i> | 239, 243 | <i>Scarites</i> | 29 | — <i>punctatulus</i> | 62 |
| PÆCILUS | 84, 278 | — <i>georgia</i> | 89 | — <i>pyritosus</i> | 58 |
| <i>Pœcilus</i> — ? | 278 | — <i>quadriceps</i> | 265 | — <i>quadricollis</i> | 61 |
| — <i>cyaneus</i> | 84 | — <i>quadriceps</i> , var. <i>lissopterus</i> .. | 265 | — <i>rodriguezi</i> | 59 |
| — <i>cyanicolor</i> | 84 | — <i>subterraneus</i> | 265 | — <i>rufulus</i> | 61 |
| — <i>cyanicolor</i> , var. <i>connexus</i> .. | 84 | — <i>texanus</i> | 30 | — <i>sallæi</i> | 59 |
| — <i>mexicanus</i> | 84 | SCARITINÆ | 27 | — <i>semirufus</i> | 61 |
| — <i>mexicanus</i> | 278 | SCHIZOGENIUS | 37, 265 | — <i>seriatoporus</i> | 60 |
| — <i>monedula</i> | 83 | <i>Schizogenius auripennis</i> | 38 | — <i>seriatoporus</i> | 59, 272 |
| <i>Pogonodaptus piceus</i> | 277 | — <i>depressus</i> | 265 | — <i>splendidus</i> | 61 |
| <i>Pogonostoma</i> | 18 | — <i>dyschirioides</i> | 37 | — <i>stigmatosus</i> | 59 |
| <i>Pogonus</i> | 136 | — <i>longipennis</i> | 37, 38 | — <i>striatopunctatus</i> | 60 |
| POLPOCHILA | 74, 277 | — <i>optimus</i> | 37 | — <i>suavis</i> | 274 |
| <i>Polpochila capitata</i> | 74 | — <i>strigicollis</i> | 38 | — <i>subæneus</i> | 272 |
| — <i>mexicana</i> | 75, 277 | — <i>tenuis</i> | 38, 265 | — <i>subsINUATUS</i> | 60 |
| — <i>rotundicollis</i> | 74 | — <i>tristriatus</i> | 37, 265 | — <i>tarsalis</i> | 61 |
| — <i>scaritides</i> | 74 | — <i>tristriatus</i> | 38 | — <i>tarsalis</i> | 272, 273 |
| POLYCHÆTUS | 268 | — <i>truquii</i> | 37 | — <i>tenuistriatus</i> | 59 |
| <i>Polychætus dejeani</i> | 268 | <i>Scotodipnus</i> | 144, 145 | — <i>tubericauda</i> | 273 |
| <i>Polyderis</i> | 138, 140, 144 | SCYTHROPASUS | 24 | — <i>tubericauda</i> | 274 |
| — <i>æquinocialis</i> | 140 | <i>Scythropasus elongatus</i> | 24 | — <i>valgus</i> | 62, 274 |
| — <i>breviuscula</i> | 144 | SELENOPHORUS | 58, 271 | — <i>vicinus</i> | 273 |
| <i>Polystichus</i> | 168 | <i>Selenophorus</i> | 49, 62, 63, | — <i>yucatanus</i> | 59 |
| <i>Pristodactyla</i> | 279 | 64, 65, 66, 274 | | <i>Sericoda</i> | 93, 96 |
| <i>Pristonychus</i> | 92 | — | 274 | — <i>bembidioides</i> | 96 |
| — <i>mexicanus</i> | 92 | — <i>æquinocialis</i> | 59, 271 | — <i>corrosa</i> | 96 |
| <i>Pristoscelis</i> | 81 | — <i>affinis</i> | 273 | — <i>decempunctata</i> | 96 |
| — <i>serratipes</i> | 81 | — <i>alternans</i> | 59 | <i>Siltopia</i> | 135 |
| <i>Procephalus</i> | 17 | | | <i>Simodontus</i> | 86 |
| — <i>maculicornis</i> | 18 | | | <i>Spathinus</i> | 135 |
| PSEUDABARYS | 86 | | | <i>Spheracra</i> | 158 |
| <i>Pseudabarys mexicanus</i> | 86 | | | <i>Spongoloba punctata</i> | 200 |

	Page
<i>Stenocnemus</i>	100
— <i>Chevrolati</i>	115
— <i>pallidipes</i>	116
— <i>versicolor</i>	114
STENOCREPIS	47, 268
<i>Stenocrepis</i>	267
— <i>chalcas</i>	47, 268
— <i>chalcochrous</i>	268
— <i>duodecimstriatus</i>	268
— <i>gratiosa</i>	268
— <i>humilis</i>	47
— <i>lepieuri</i>	47
— <i>mexicanus</i>	45
— <i>striatella</i>	47
STENOGLOSSA	184
<i>Stenoglossa atriceps</i>	184
— <i>lineata</i>	184
— <i>nigrostriata</i>	184
— <i>pallida</i>	184
— <i>picturata</i>	184
— <i>transversa</i>	184
— <i>undulata</i>	184
— <i>variiegata</i>	184
STENOGNATHUS	175
<i>Stenognathus batesi</i>	175
— <i>platypterus</i>	175
— <i>quadricollis</i>	175
STENOLOPHINÆ	70
STENOLOPHUS	70
<i>Stenolophus</i>	67, 68, 69
— <i>conjunctus</i>	71
— <i>flavipes</i>	70, 71
— <i>limbalis</i>	71
— <i>mexicanus</i>	70
STENOMORPHUS	64
<i>Stenomorphus rufipes</i>	65
<i>Stenonotum</i>	199
STENOUS	46, 268
<i>Stenous chlorophanes</i>	268
— <i>duodecimstriatus</i>	46, 268
— <i>elegans</i>	47
— <i>gratiosa</i>	268
— <i>gratiosus</i>	46, 268
— <i>gratiosus</i>	47
— <i>Lecontei</i>	268
— <i>metallicus</i>	268
— <i>olivaceus</i>	47, 268
— <i>tibialis</i>	46, 268
— <i>tibialis</i>	47
<i>Stereodema</i>	88
<i>Stereostoma</i>	88
<i>Steropus convexus</i>	80
<i>Stigmaphorus tessellatus</i>	155
STOLONIS	88
<i>Stolonis intercepta</i>	88
<i>Syllectus</i>	67

	Page
<i>Tachycellus</i>	69, 70, 71, 74
<i>Tachylopha</i>	138
<i>Tachymenis</i>	137
TACHYS	138, 287
<i>Tachys</i>	136, 140, 142, 144, 145, 147, 289
— n. sp.	143
— <i>æquinotialis</i>	140
— <i>amplicollis</i>	142
— <i>amplicollis</i>	288
— <i>australis</i>	145
— <i>castaneicolor</i>	139, 288
— <i>castaneicolor</i>	140
— <i>chiriquinus</i>	139, 287
— <i>chiriquinus</i>	140
— <i>corruscus</i>	139
— <i>coruscus</i>	139
— <i>coruscus</i>	143, 288
— <i>cribellatus</i>	143
— <i>cribellatus</i>	289
— <i>cruciatus</i>	141
— <i>curvans</i>	143
— <i>curvans</i>	140
— <i>diminutus</i>	288
— <i>diploharpinus</i>	138, 287
— <i>duplex</i>	289
— <i>flavicollis</i>	140
— <i>globulus</i>	142
— <i>gracilior</i>	289
— <i>immaculatus</i>	289
— <i>incurvus</i>	140, 141
— <i>insularum</i>	288
— <i>jansoni</i>	143, 289
— <i>limbatellus</i>	288
— <i>lugubris</i>	140
— <i>lymnæoides</i>	139
— <i>microspilus</i>	142
— <i>minusculus</i>	143
— <i>monostictus</i>	287
— <i>mundulus</i>	141
— <i>mundulus</i>	142
— <i>nebulosus</i>	140
— <i>obtusellus</i>	141
— <i>pericallis</i>	141
— <i>platyderus</i>	142
— <i>pulchellus</i>	140
— <i>purgatus</i>	142
— <i>rivularis</i>	137
— <i>rufula</i>	143
— <i>rufulus</i>	143
— <i>scutellaris</i>	288
— <i>squiresi</i>	143
— <i>tantilla</i>	140
— <i>tantillus</i>	140
— <i>vittiger</i>	139

	Page
<i>Tachys vorax</i>	288
TACHYTA	137, 287
<i>Tachyta</i>	138, 140
— —	287
— <i>autumnalis</i>	137, 287
— <i>autumnalis</i>	138
— <i>cucujoides</i>	138
— <i>flavicauda</i>	137, 138
— <i>marginicollis</i>	138
— <i>nana</i>	137
— <i>parallela</i>	138
— <i>picipes</i>	137
<i>Tachyura</i>	138
— <i>rufula</i>	143
<i>Tæniolobus</i>	29, 30
<i>Tarus</i>	188
TETRACHA	1
<i>Tetracha affinis</i>	3
— <i>angustata</i>	3
— <i>carolina</i>	1
— <i>carolina</i>	2, 3
— <i>carolina</i> , var. <i>cyanides</i>	256
— <i>chevrolati</i>	2
— <i>Chevrolati</i>	2
— <i>chilensis</i>	1
— <i>cyanides</i>	1
— <i>cyanides</i>	2
— <i>euphratica</i>	1
— <i>fuliginosa</i>	3
— <i>ignea</i>	2, 3
— <i>mexicana</i>	2
— <i>sobrina</i>	2
— <i>sobrina</i>	3
— <i>virginica</i>	3
TETRAGONODERINÆ	171
TETRAGONODERUS	171, 295
<i>Tetragonoderus</i>	172
— <i>intermixtus</i>	172
— <i>mexicanus</i>	173, 295
— <i>nigrostriatus</i>	184
— <i>pœcilus</i>	172
— <i>simplex</i>	172
— <i>sinuosus</i>	172
— <i>subfasciatus</i>	172
— <i>transversus</i>	184
<i>Thalpius</i>	166
— <i>pygmæus</i>	166
THENARELLUS	69
<i>Thenarellus</i>	67
— <i>leucopus</i>	69
<i>Thenarotes</i>	67
<i>Therates</i>	17
<i>Thopoutica</i>	15
<i>Trachelizus</i>	27
<i>Trachysarus</i>	70
<i>Trechicus</i>	133, 135

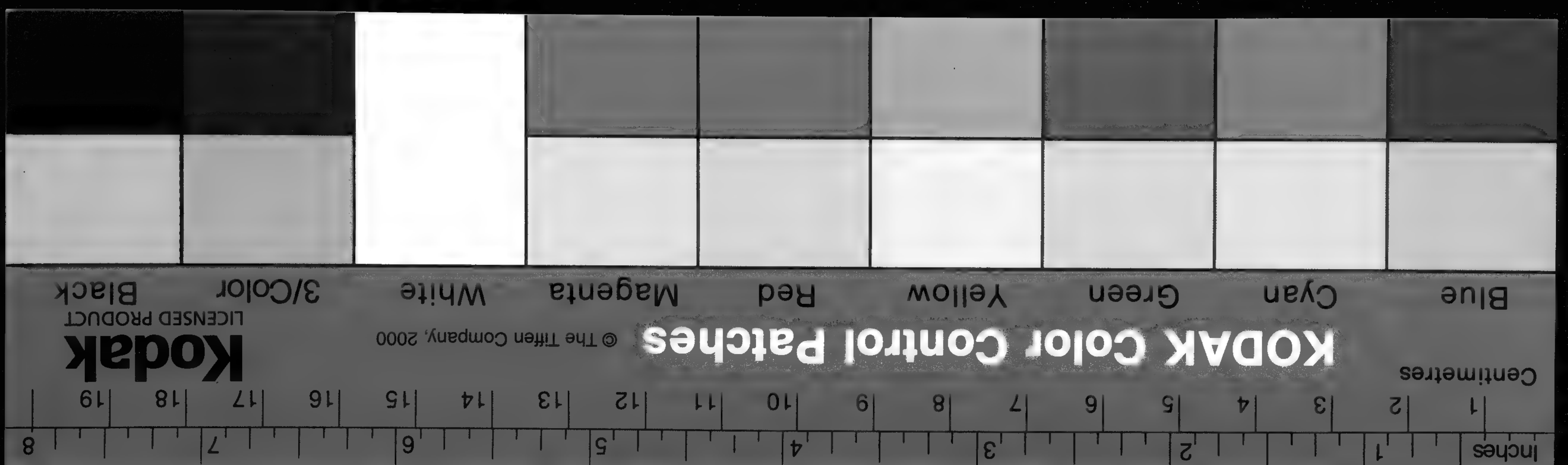
	Page		Page		Page
TRECHINÆ.....	136	<i>Trichothorax</i>	216	<i>Xystosomus belti</i>	147
TRECHUS	136	<i>Tropopsis</i>	25	— <i>belti</i>	290
<i>Trechus</i>	138, 144	<i>Variopalpis</i>	192	— <i>olivaceus</i>	147
— <i>coarctatus</i>	136	<i>Wakefieldia</i>	216	— <i>sublævis</i>	146
— <i>conjunctus</i>	71	<i>Xenothorax</i>	216	— <i>sulcicostis</i>	146
— <i>mexicanus</i>	136	XYSTOSOMUS.....	146, 290	<i>Zabrus</i>	22
— <i>mexicanus</i>	137	<i>Xystosomus</i>	140, 147	— <i>femoratus</i>	22
— <i>panamensis</i>	137	— <i>ampliatu</i> s	290	<i>Zuphiosoma</i>	166
— <i>rostratus</i>	137			— <i>fulva</i>	166
<i>Triena</i>	79			ZUPHIUM	166
TRICHOPSELAPHUS	64			<i>Zuphium mexicanum</i>	166
<i>Trichopselaphus minor</i>	64				
— <i>subiridescens</i>	64				

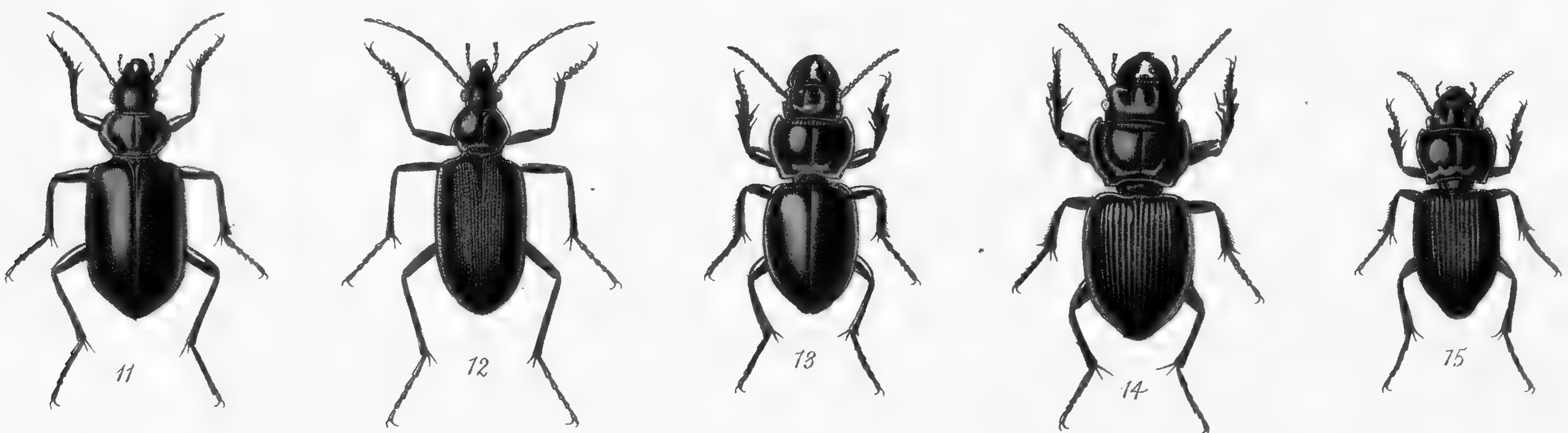
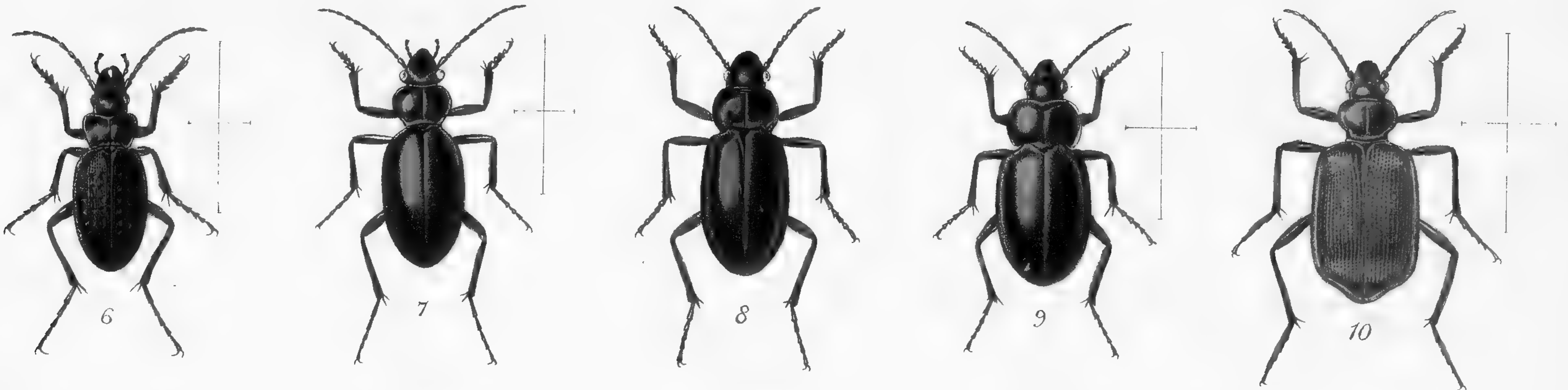


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|----------------------------|-------------------------|-----------------------------|
| 1 TETRACHA ANGUSTATA. | 9 CICINDELA CARTHAGENA. | 18 CICINDELA PONDEROSA. |
| 2 PSEUDOXYCHEILA TARSALIS. | 10 " FLOHRI. | 19 " SEMICIRCULARIS. |
| 3 OXYCHEILA POLITA. | 11 " KLUGI. | 20 " VIRIDISTICTA. |
| 4 CICINDELA VIATICA. | 12 " FLAVOPUNCTATA. | 21 CTENOSTOMA MACULICORNIS. |
| 5 " HOGEI. | 13 " ENEICOLLIS. | 22 CICINDELA PALLIFERA. |
| 6 " HYDROPHOBA. | 14 " PAPILLOSA. | 23 ODONTOCHEILA LEPTALIS. |
| 7 " MELLYI. | 15 " AURORA. var. | 24 " SALVINI. |
| 8 " ROSEIVENTRIS. | 16 " NEBULOSA. | 25 OXYGONIA BOUCARDI. |
| | 17 " MACROCNEMA. | |

W. Purkiss lith.

Hanhart imp.
283

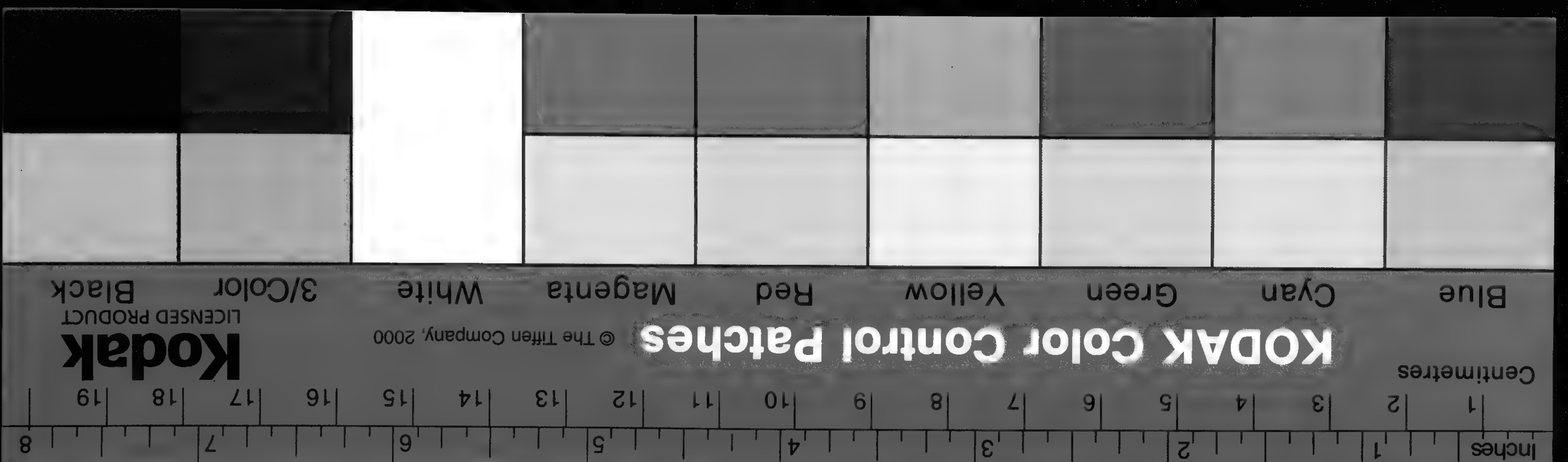


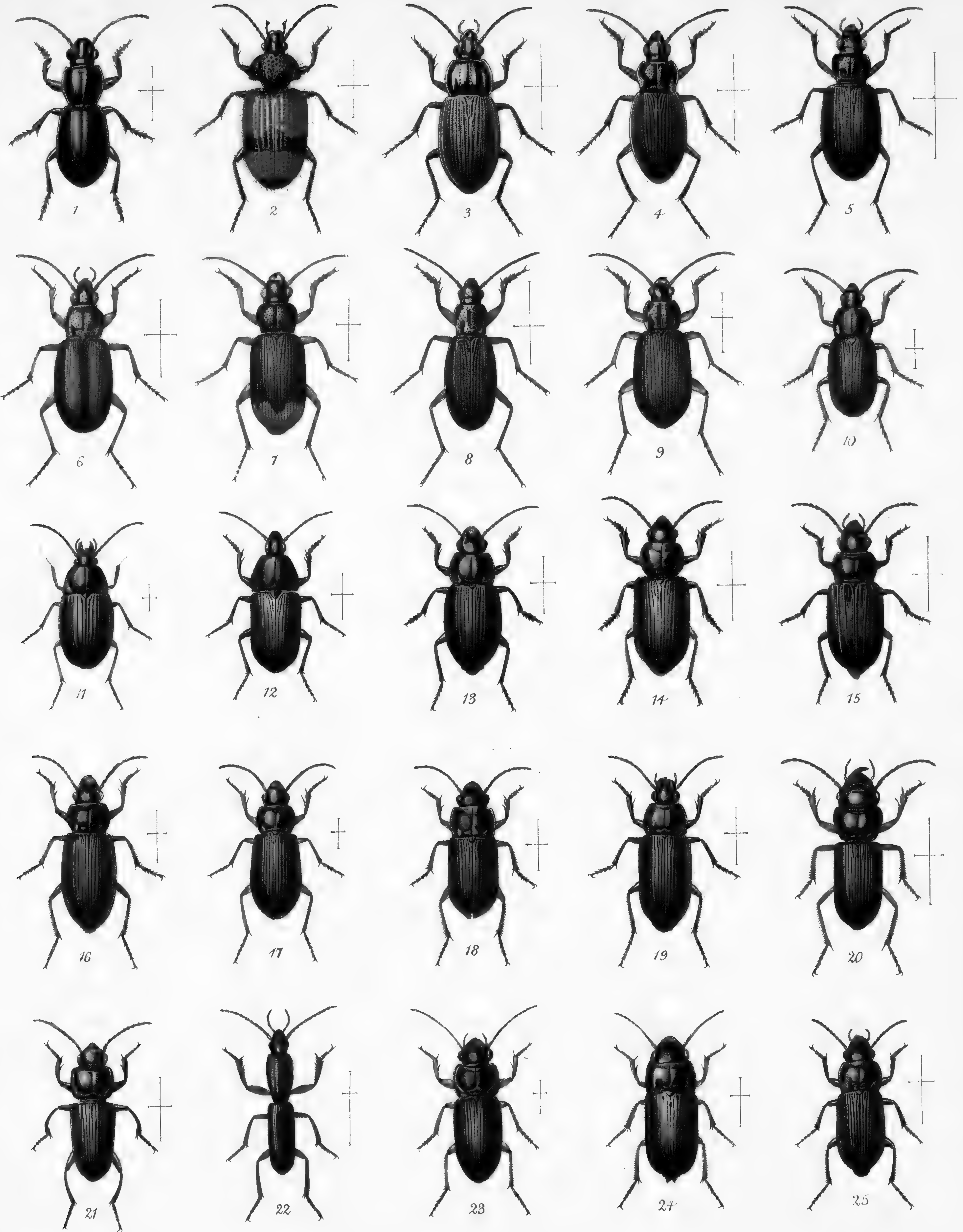


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|-----------------------------|----------------------------|-------------------------------|
| 1. OMOPHRON OBLONGIUSCULUS. | 9. CALOSOMA STRIATIPENNE. | 18. PASIMACHUS SUBANGULATUS |
| 2. NOTIOPHILUS SPECULARIS. | 10. " AUROCINCTUM. | 19. " ROTUNDIPENNIS. |
| 3. LORICERA ROTUNDICOLLIS. | 11. " PEREGRINATOR. | 20. CALOSOMA DOLENS. |
| 4. PHYSEA HIRTA. | 12. " ANGULATUM. | 21. ASPIDOGLOSSA DISTINCTA. |
| 5. PACHYTELES FUNCKI. | 13. PASIMACHUS MEXICANUS. | 22. PACHYTELES SERIATOPORUS. |
| 6. CALOSOMA DEPRESSICOLLE. | 14. " RODRIGUEZI. | 23. SCHIZOGENIUS TRISTRIATUS. |
| 7. " BLAPTOIDES. | 15. " SALLÆI. | 24. GLIVINA DISTIGMA. |
| 8. " LÆVE. | 16. PACHYTELES VERTICALIS. | 25. ARDISTOMIS CONVEXA. |
| | 17. " CYANIPENNIS. | |

W. Parkies lith.

Hanhart imp
284

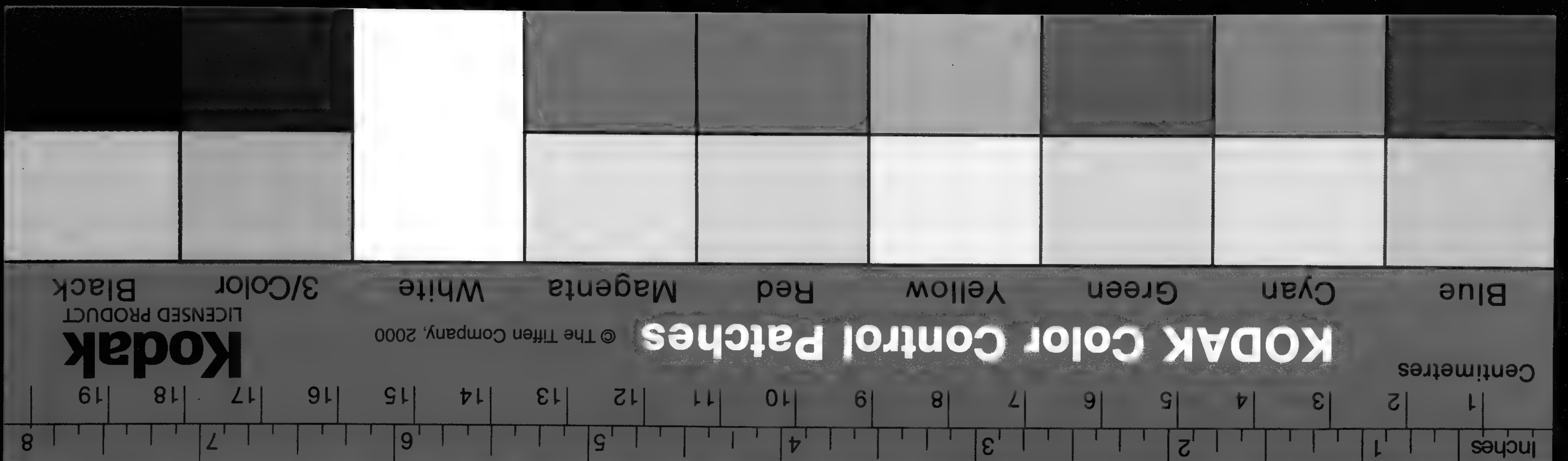


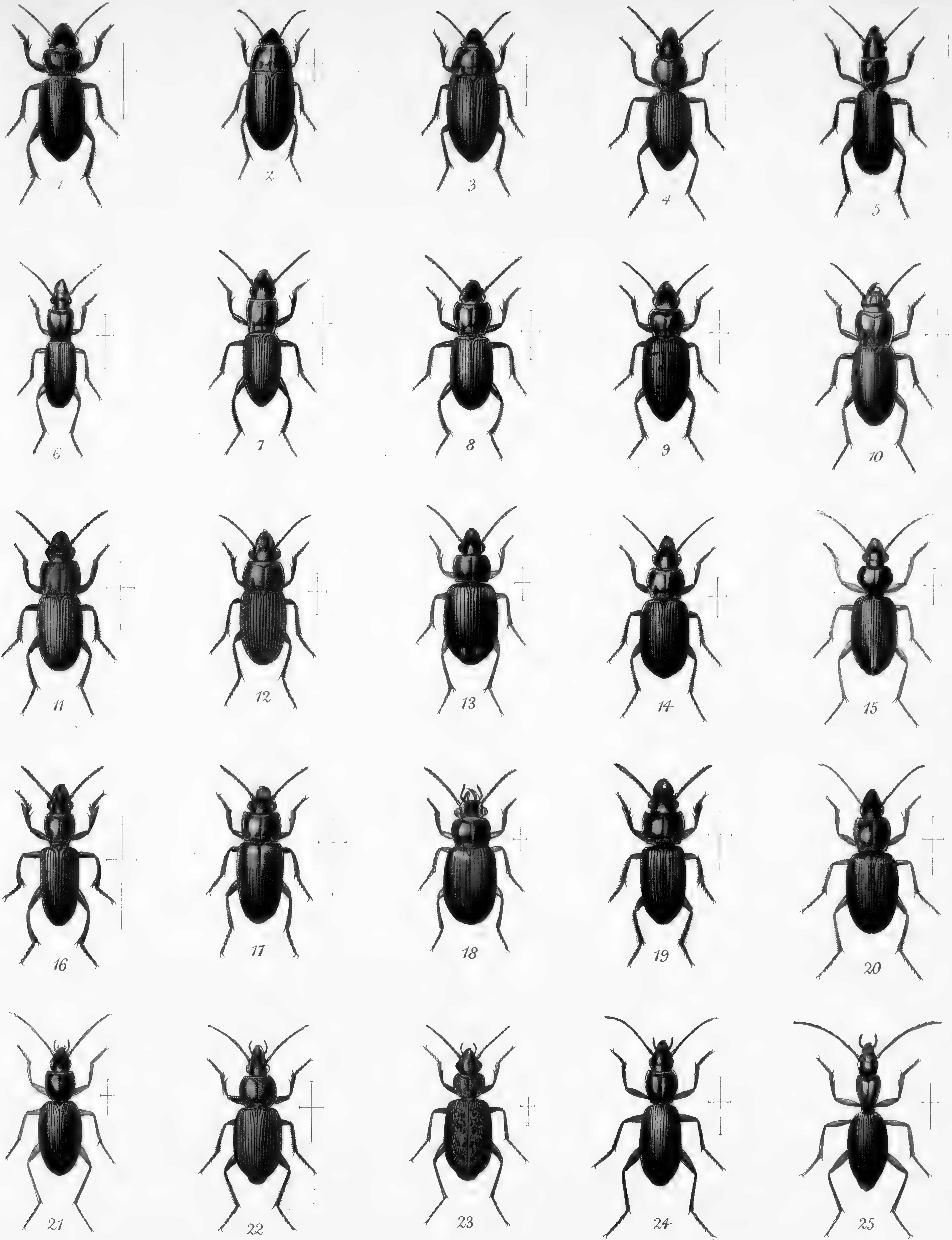


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|------------------------|---------------------------------|----------------------------|
| 1 PELECIUM NITIDUM. | 9 CHLENIUS OBSCURIPENNIS. | 18 SELENOPHORUS PYRITOSUS. |
| 2 PANAGEUS SALLÆI. | 10 STENOUS TIBIALIS. | 19 " SPLENDIDUS. |
| 3 CHLENIUS MENEVILLEI. | 11 ANATRICHIS PICEUS. | 20 POLPOCHILA CAPITATA. |
| 4 " MARTINEZI. | 12 STENOCREPIS CHALCAS. | 21 DISCODERUS DISTORTUS |
| 5 " SALLÆI. | 13 ANISOTARSUS CYANIPPUS. | 22 STENOMORPHUS RUFIPES. |
| 6 " GUATEMALENUS. | 14 ANISODACTYLUS ROTUNDANGULUS. | 23 SELENOPHORUS TARSALIS. |
| 7 " RUFICAUDA. | 15 NOTIOBIA DISPARILIS. ♀ | 24 BARYSOMUS METALLICUS |
| 8 " PLANIPENNIS. | 16 " CUPREOLA. | 25 ATHROSTICTUS SERICATUS. |
| | 17 PELMATELLUS NITESCENS. | |

W. Parkise lith.

Hanhart imp
291.





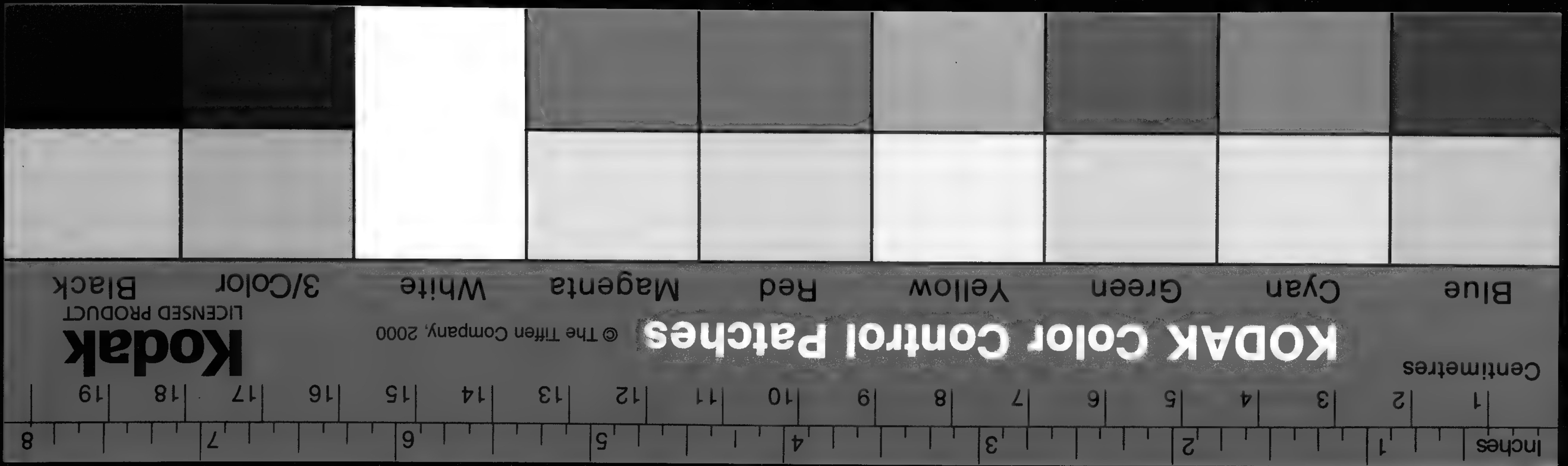
1 CURTONOTUS PUTZEYSI.
 2 CELIA TENEBRIONELLA.
 3 AMARA AZTECA
 4 EVARTHUS CONSTRICTUS
 5 PERCOLAUS CHAMPIONI.
 6 HYPHERPES LONGISSIMUS.
 7 ALLOTRIOPUS SERRATIPES.
 8 HYPHERPES BRACHYPTERUS.

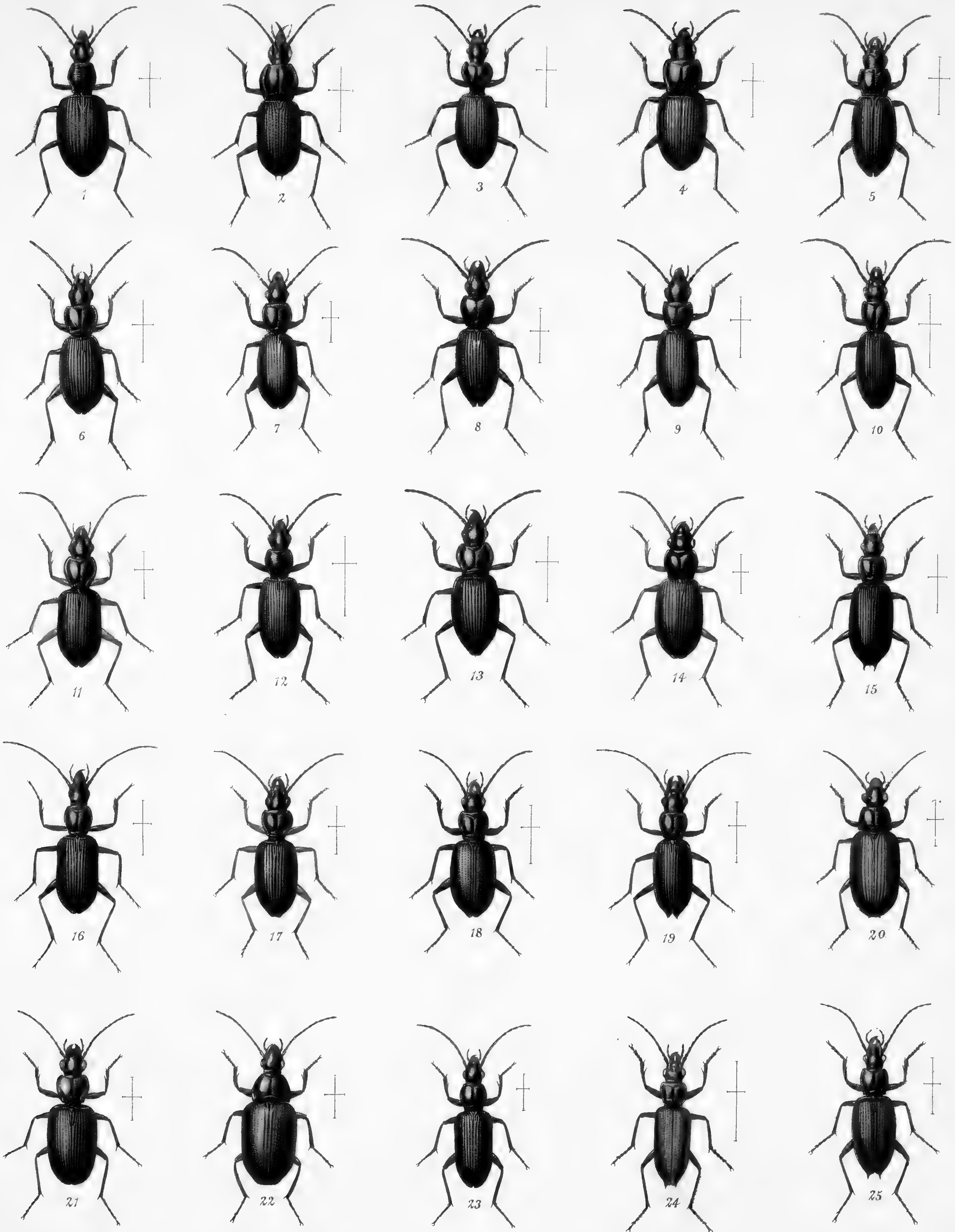
9 PLATYSMA TROPICALIS
 10 EUCHROA NITIDIPENNIS
 11 " DIMIDIATA.
 12 ABARIS BIGENERA.
 13 LOXANDRUS TETRASTIGMA.
 14 ADRIMUS OLIVACEUS.
 15 STOLONIS INTERCEPTA.
 16 MORIO LAFERTEI.
 17 CATAPIESIS MEXICANA.

18 CRATOCERUS SULCATUS
 19 MORIOSOMUS SYLVESTRIS.
 20 CALATHUS OVIPENNIS.
 21 ELLIPTOLEUS FLAVIPES.
 22 ANCHOMENUS SCUTIFER
 23 " DECEMPUNCTATUS.
 24 PLATYNUS MONTEZUMAE
 25 " LEPTOMORPHUS

W. Park, ss. (1911)

Handed imp. 296





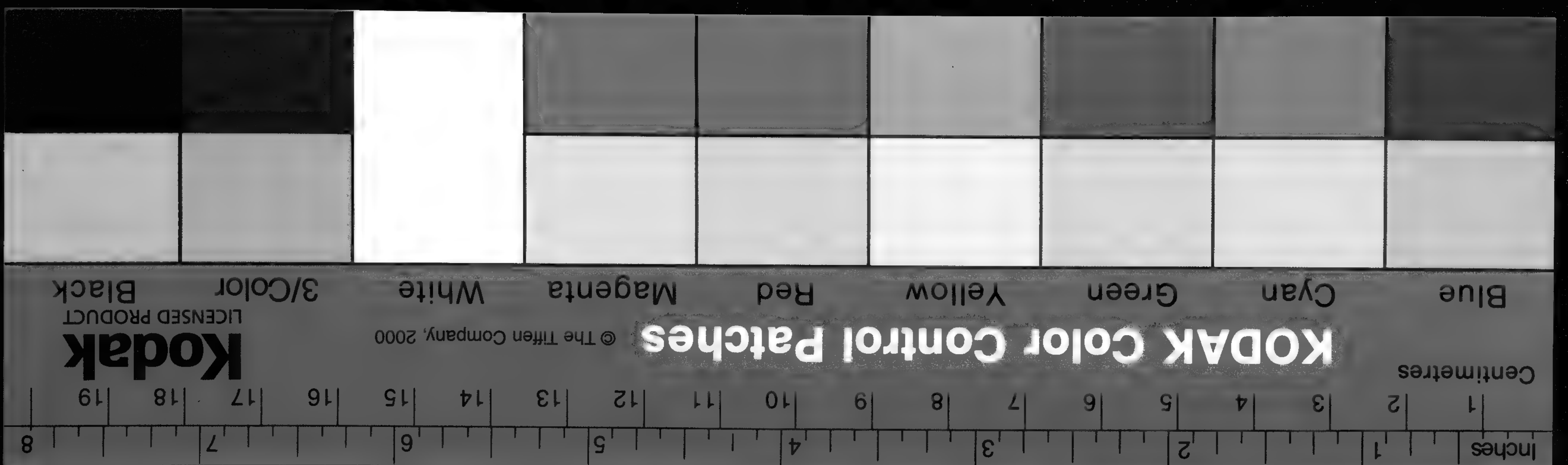
1 GLYPTOLENUS RUGICOLLIS.
 2 CYRTOLAUS SPINICAUDA.
 3 COLPODES STRICTICOLLIS.
 4 " PTEROSTICHOIDES.
 5 " INCULTUS.
 6 " PROCEPHALUS.
 7 " EVANESCENS.
 8 " GRATUS.

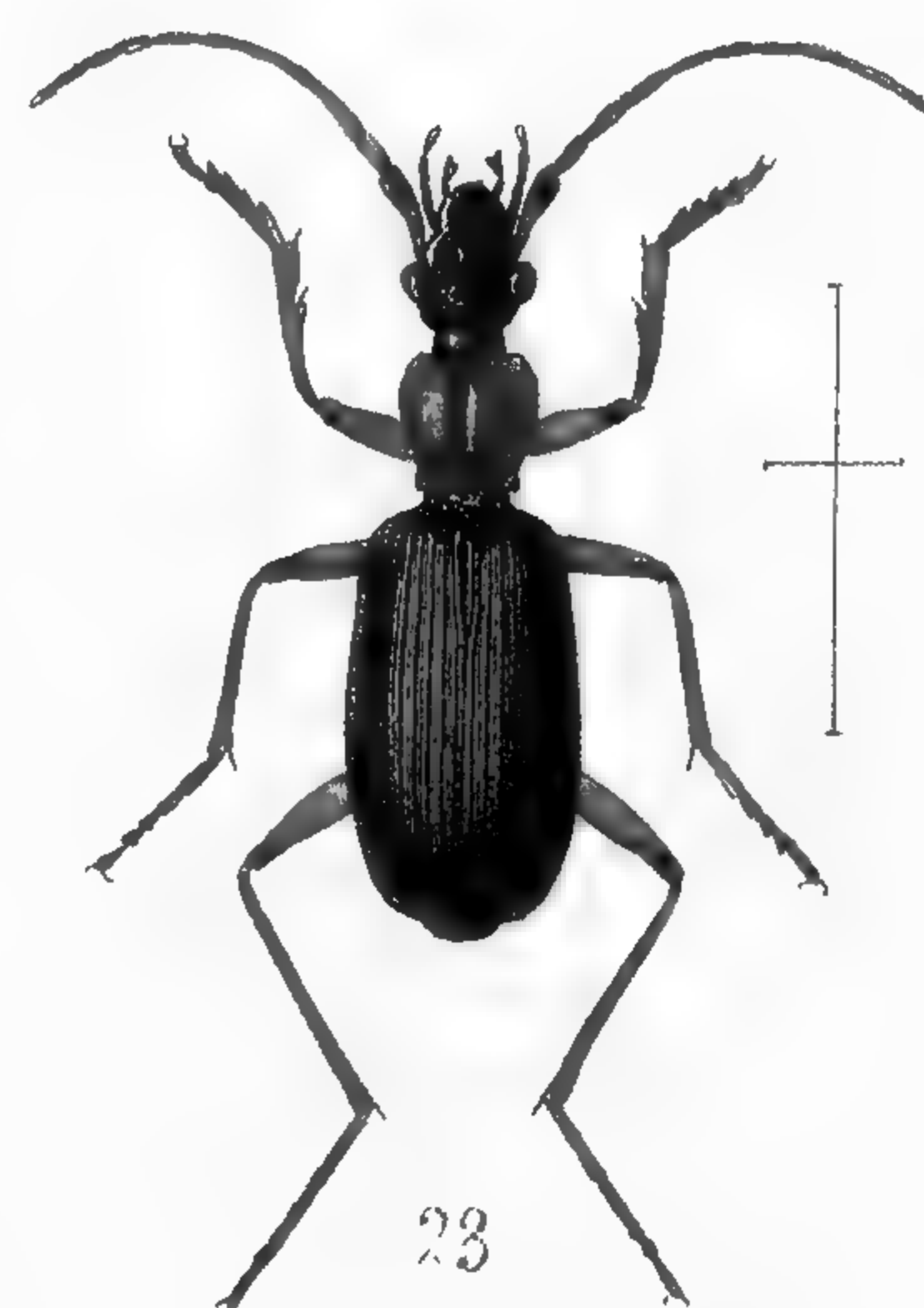
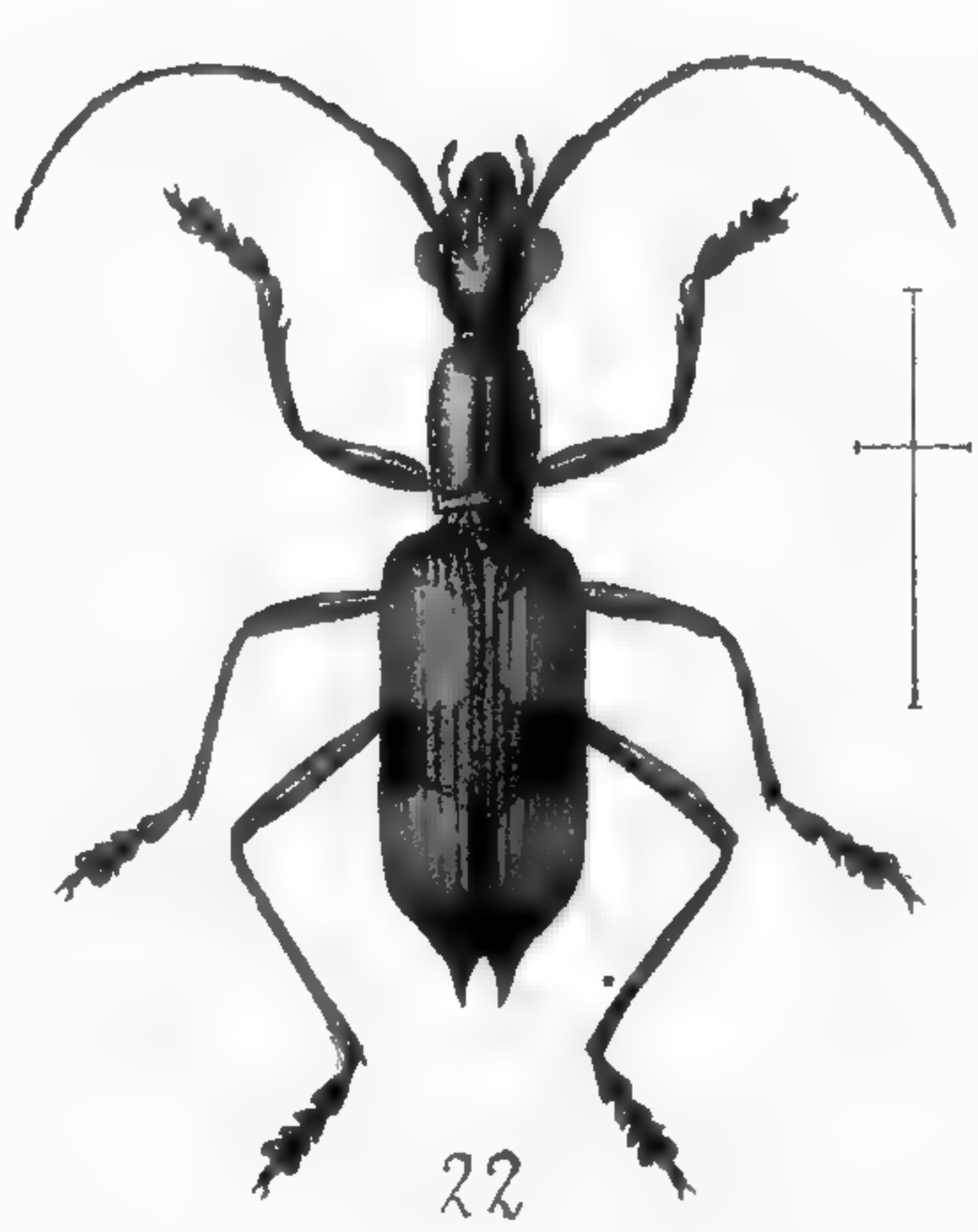
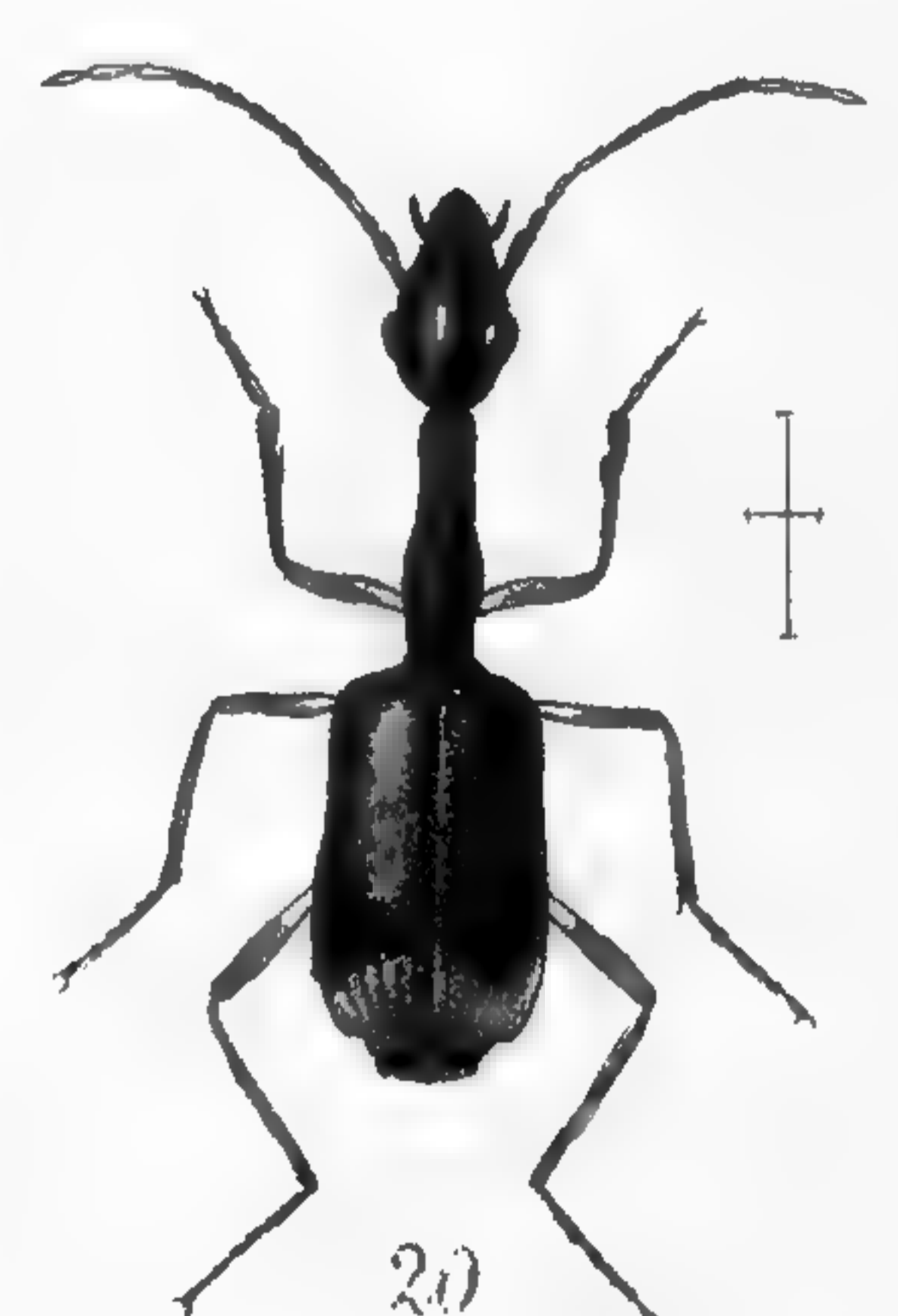
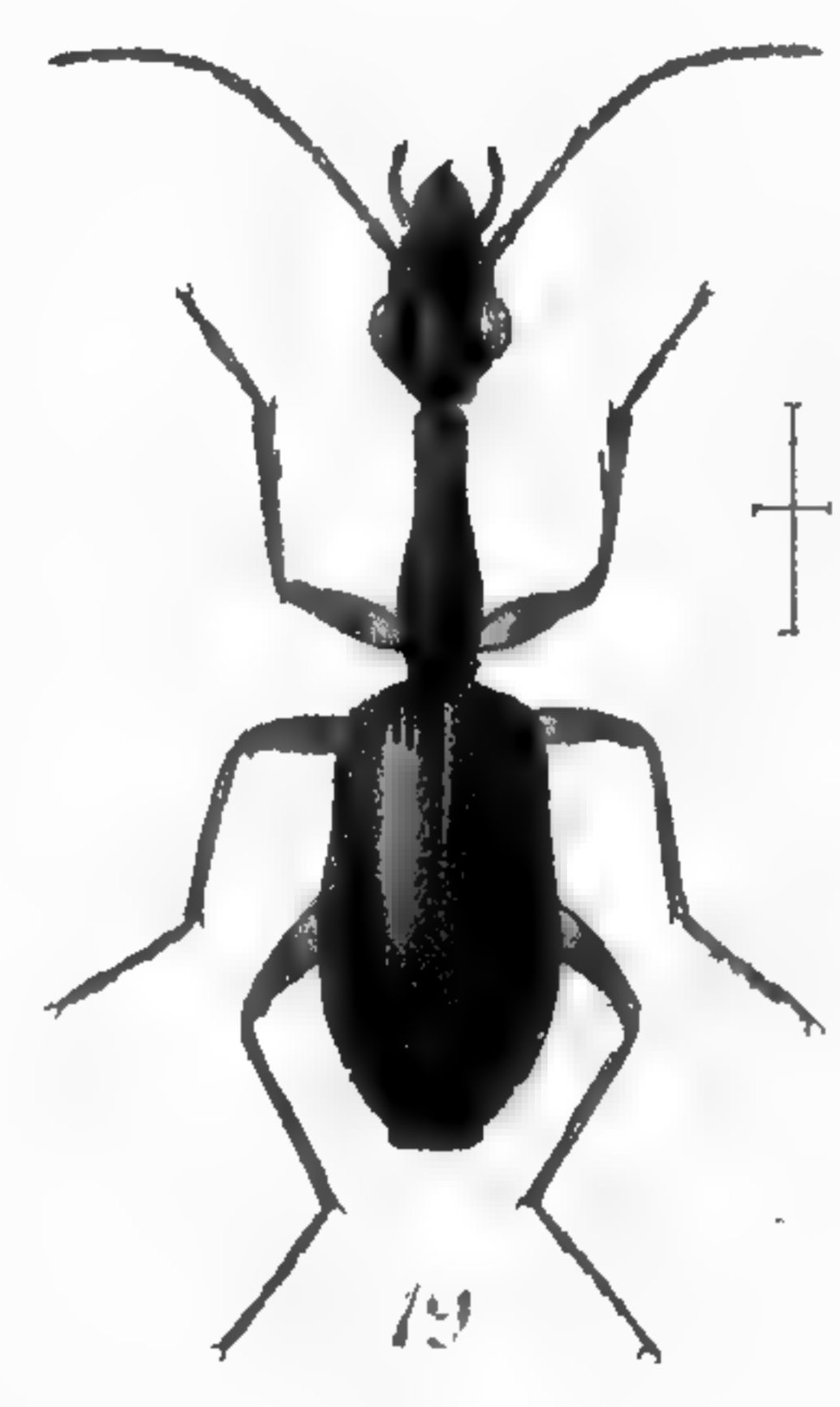
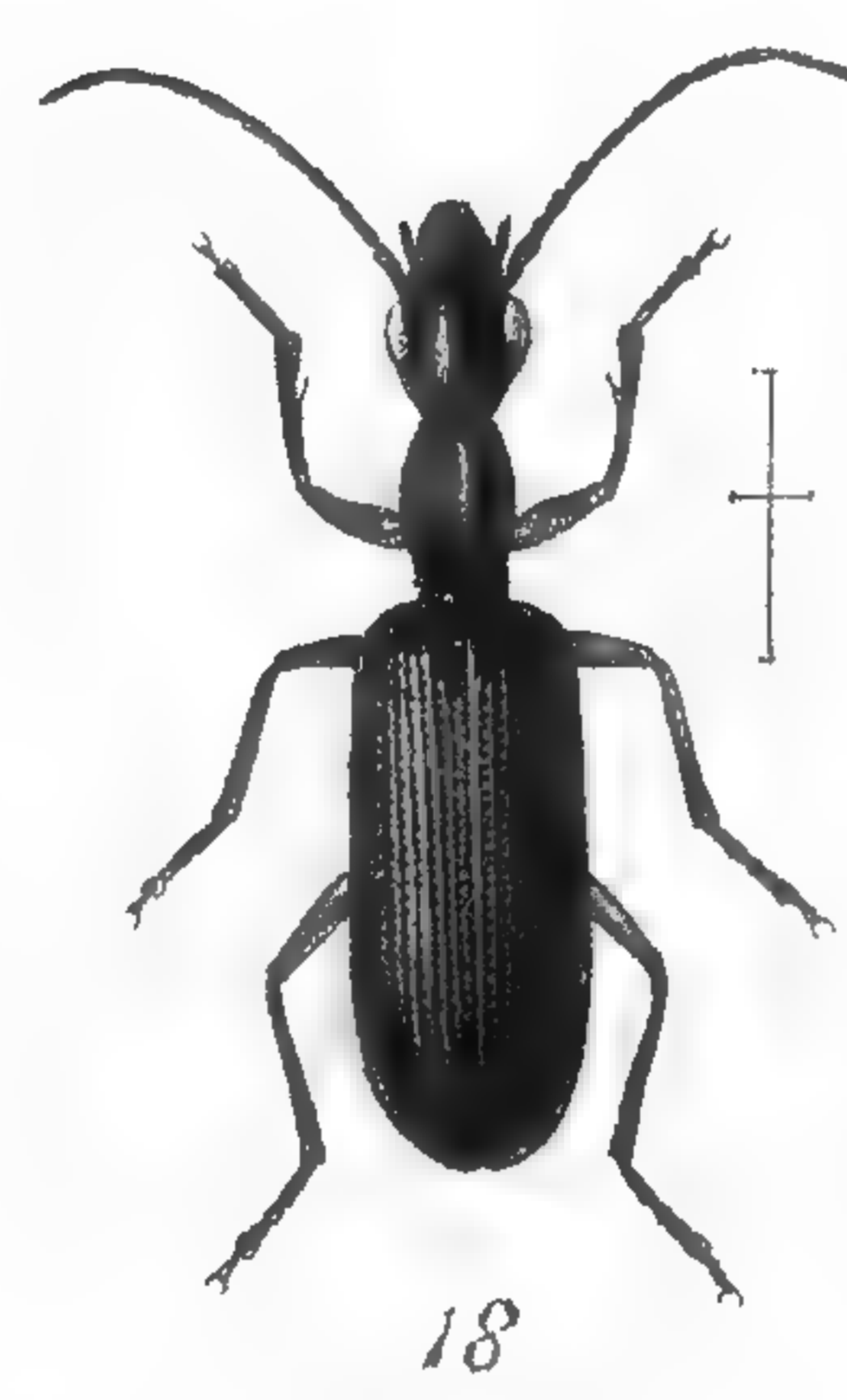
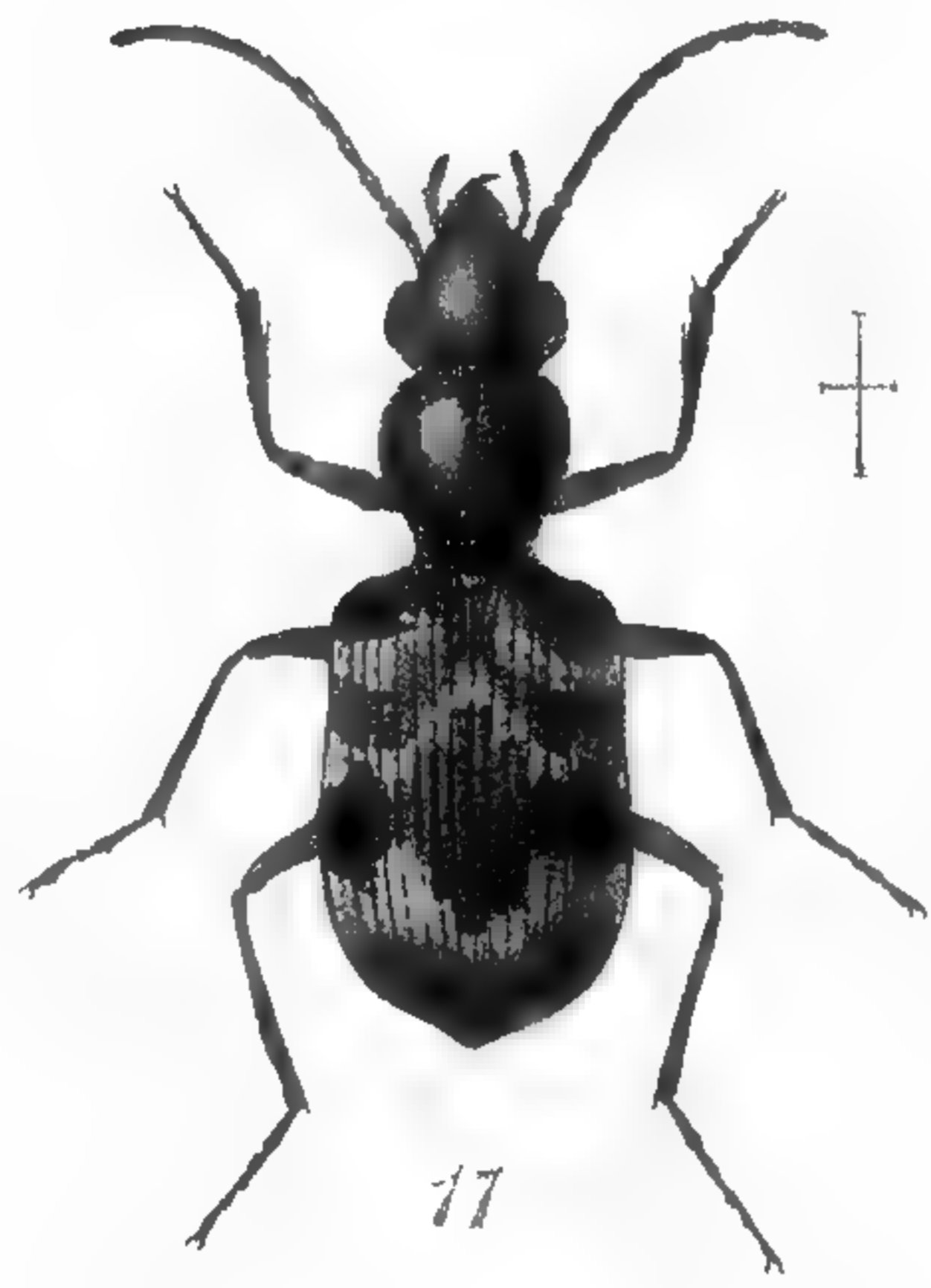
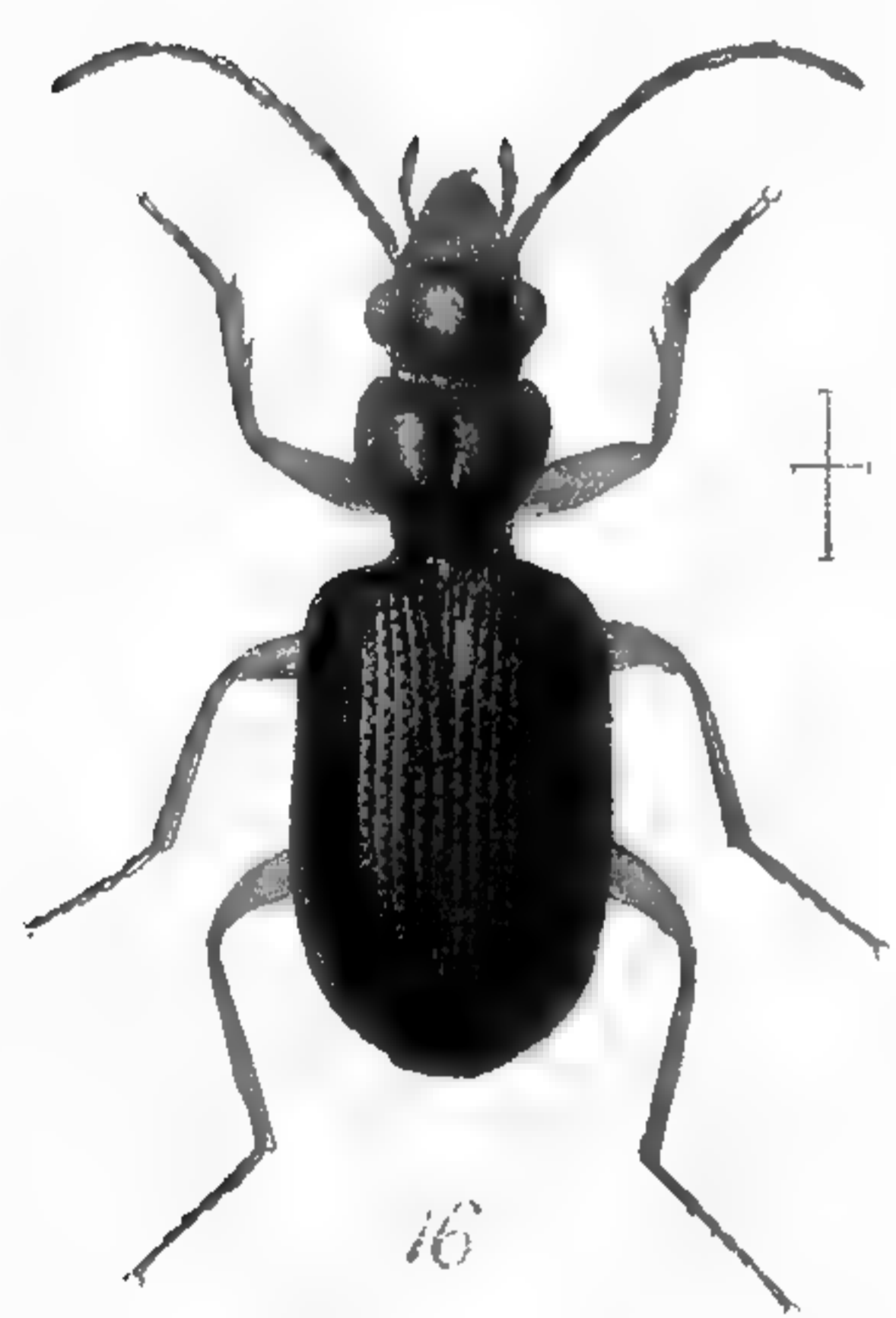
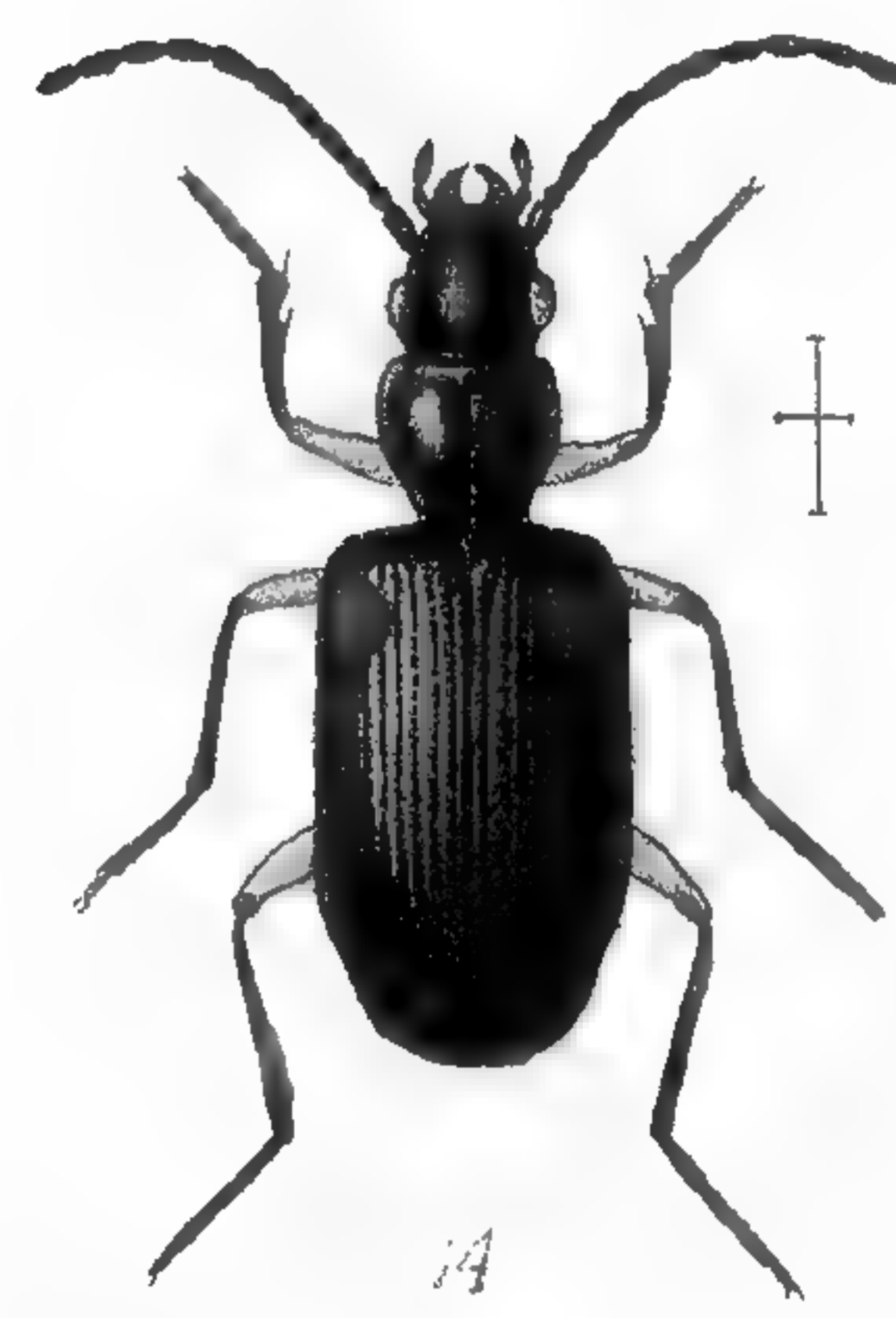
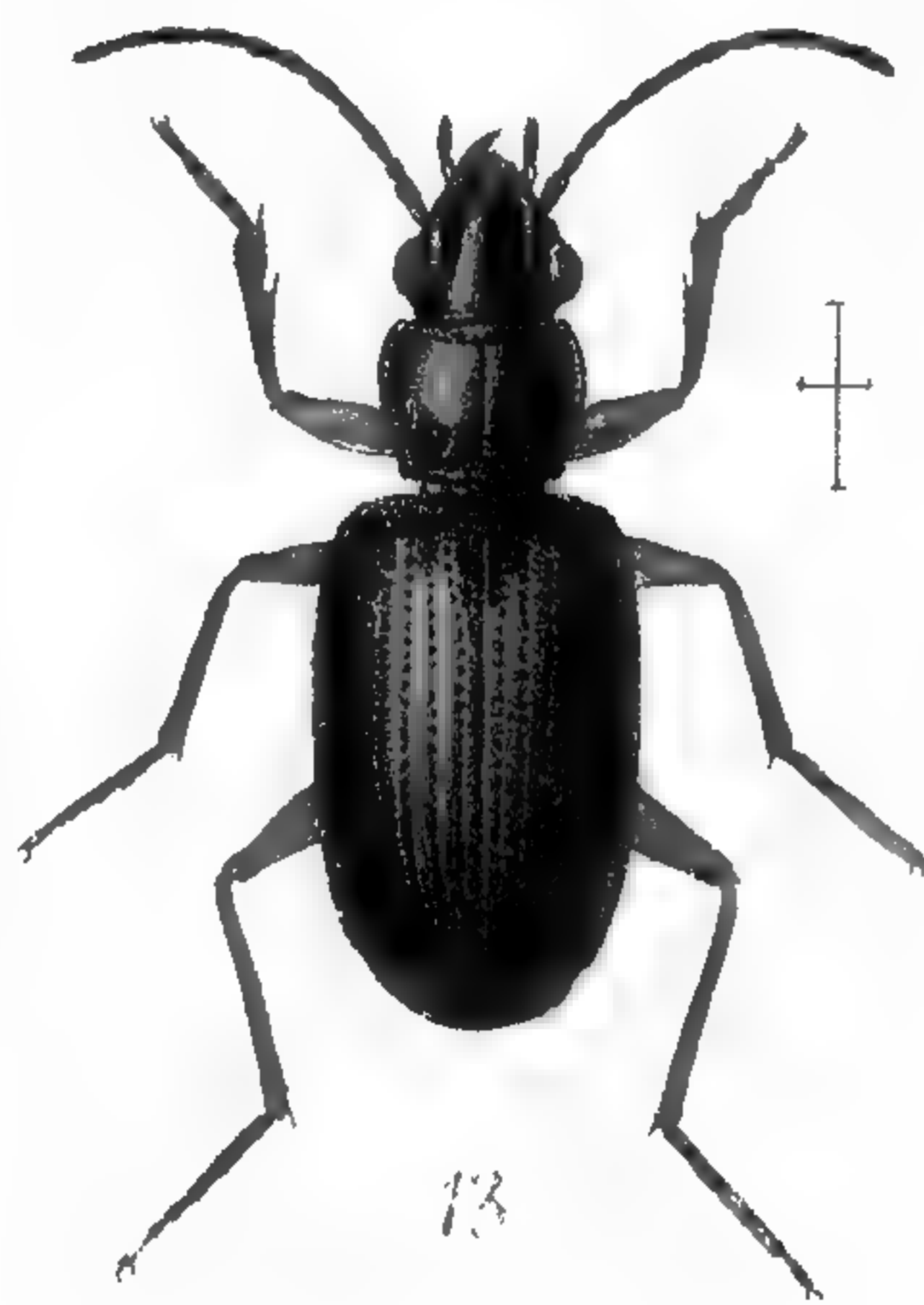
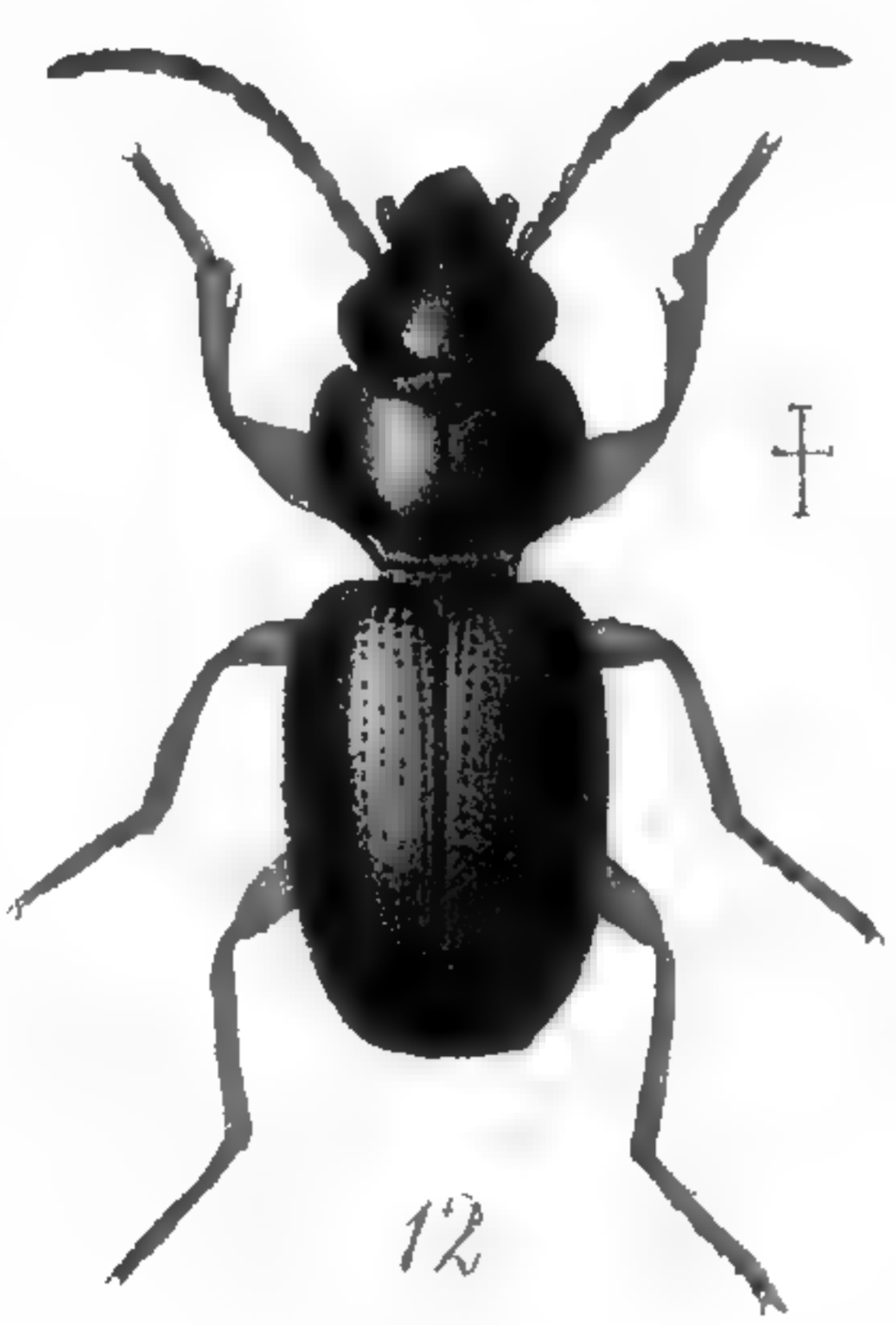
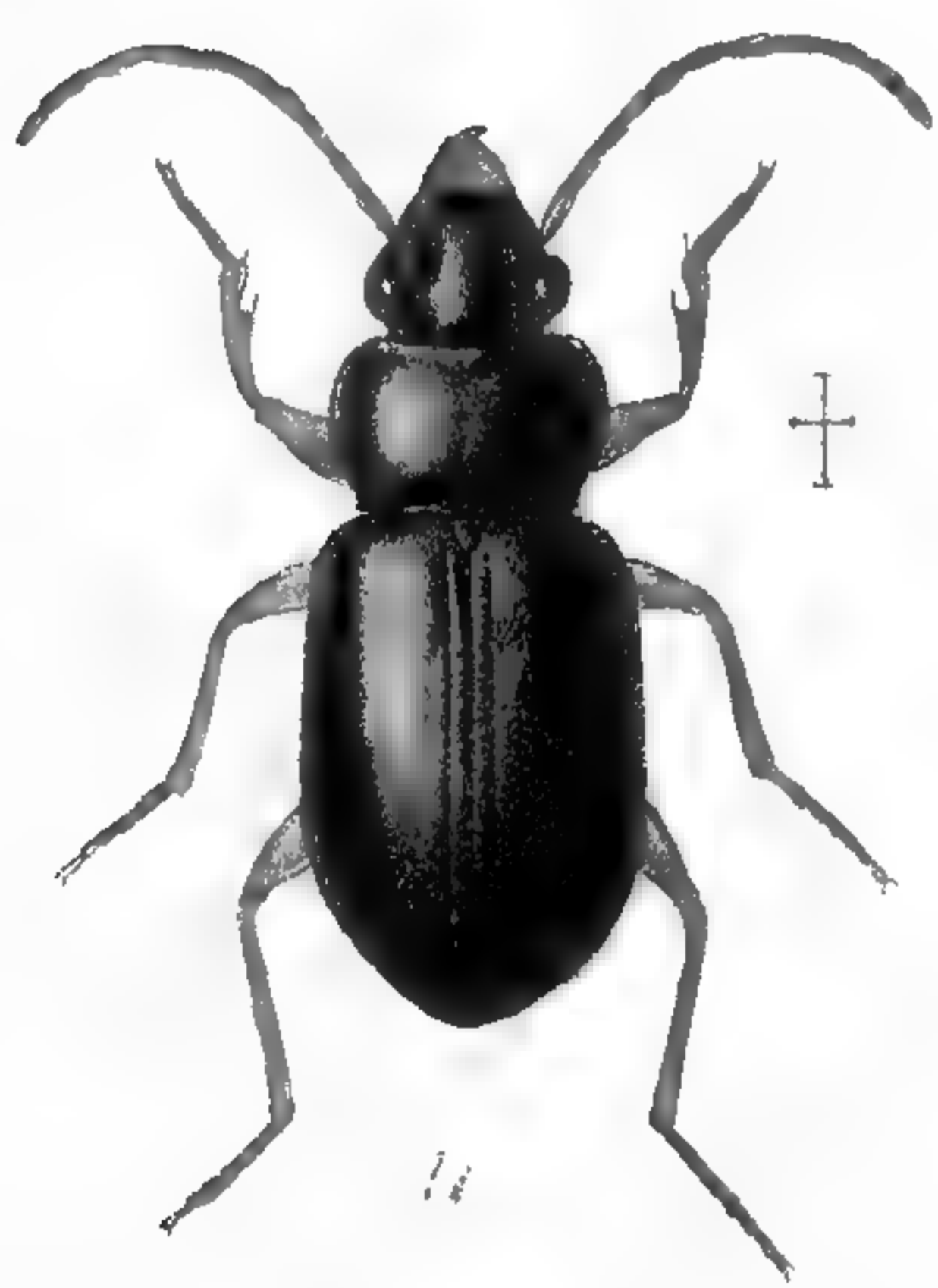
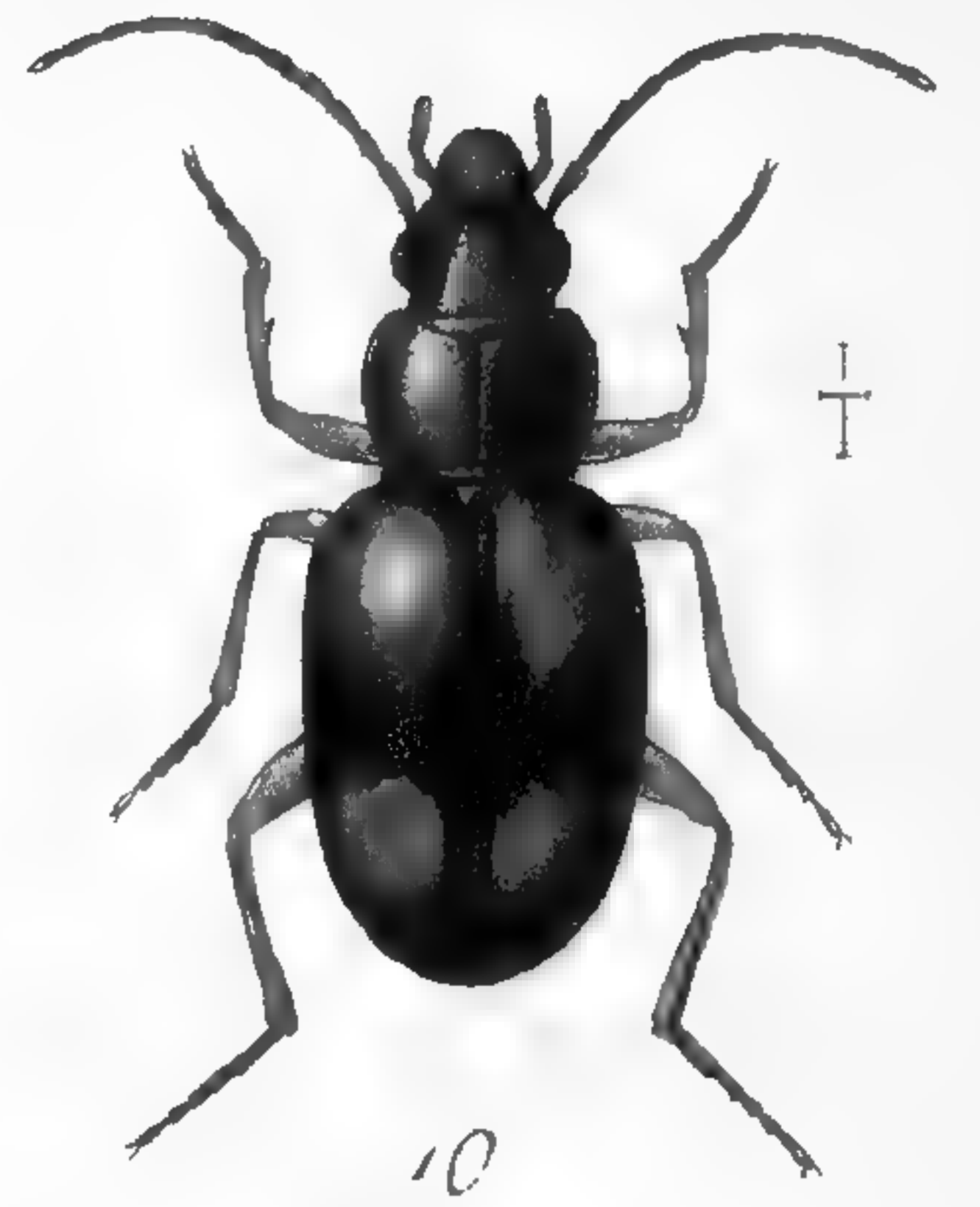
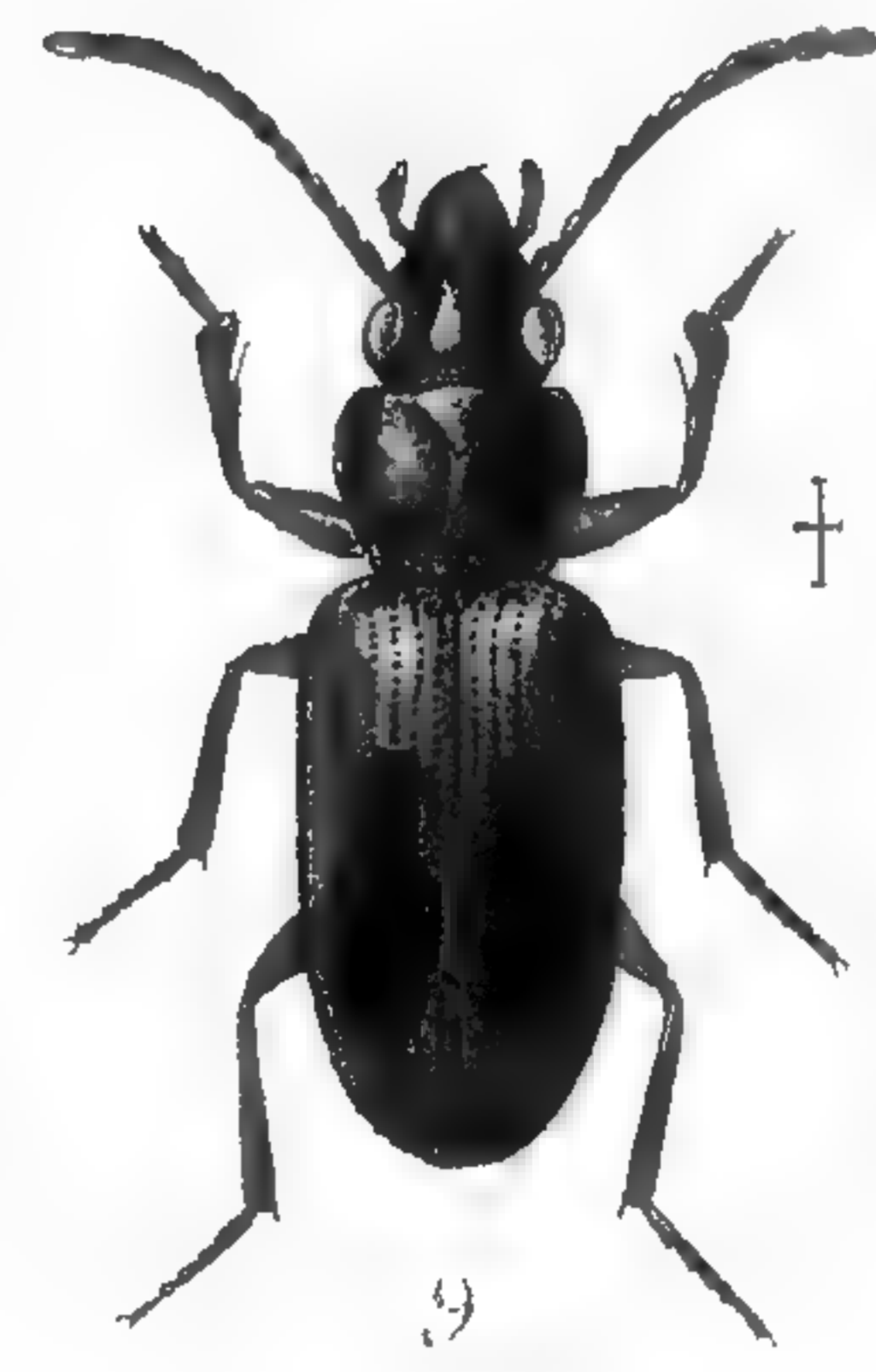
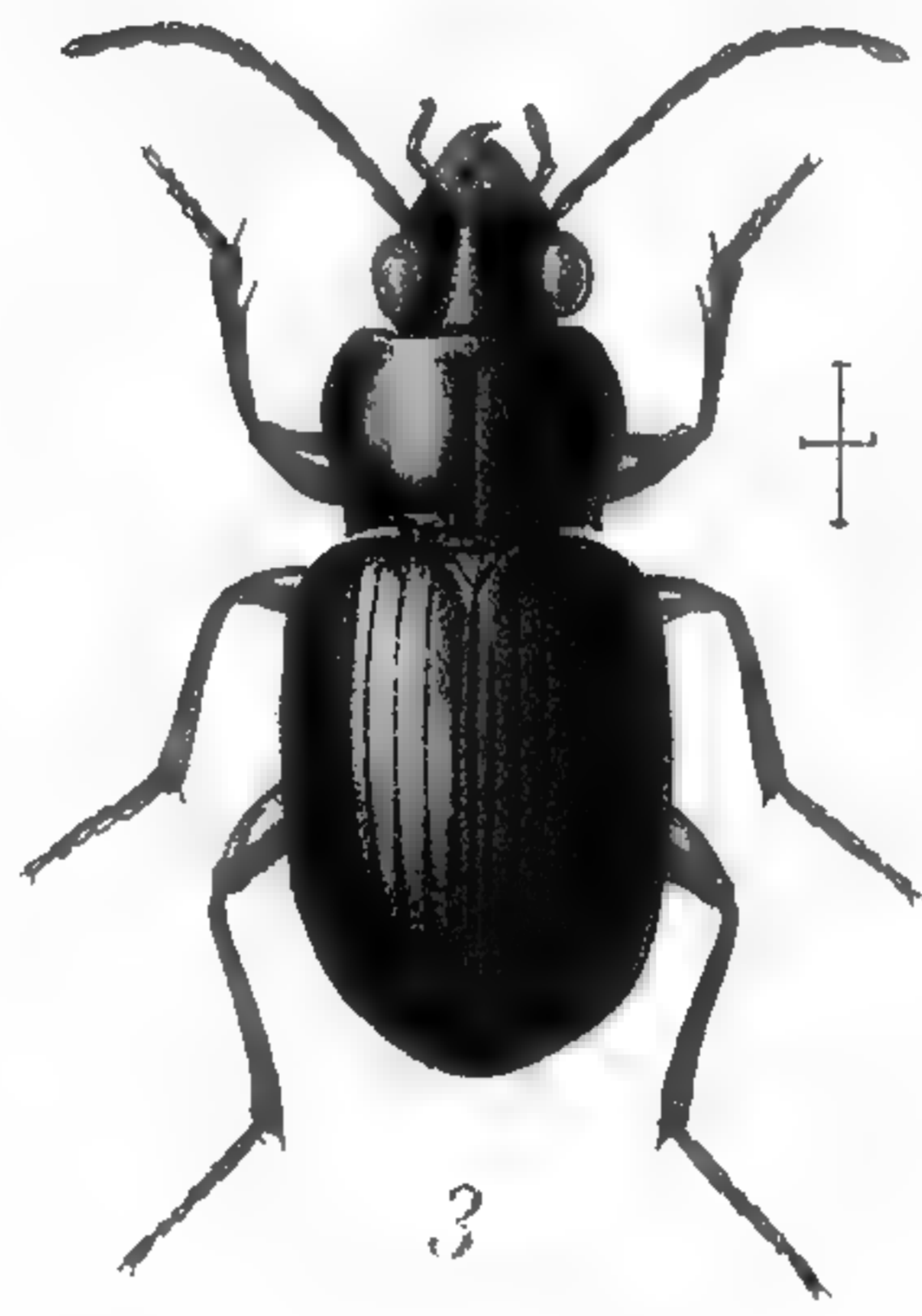
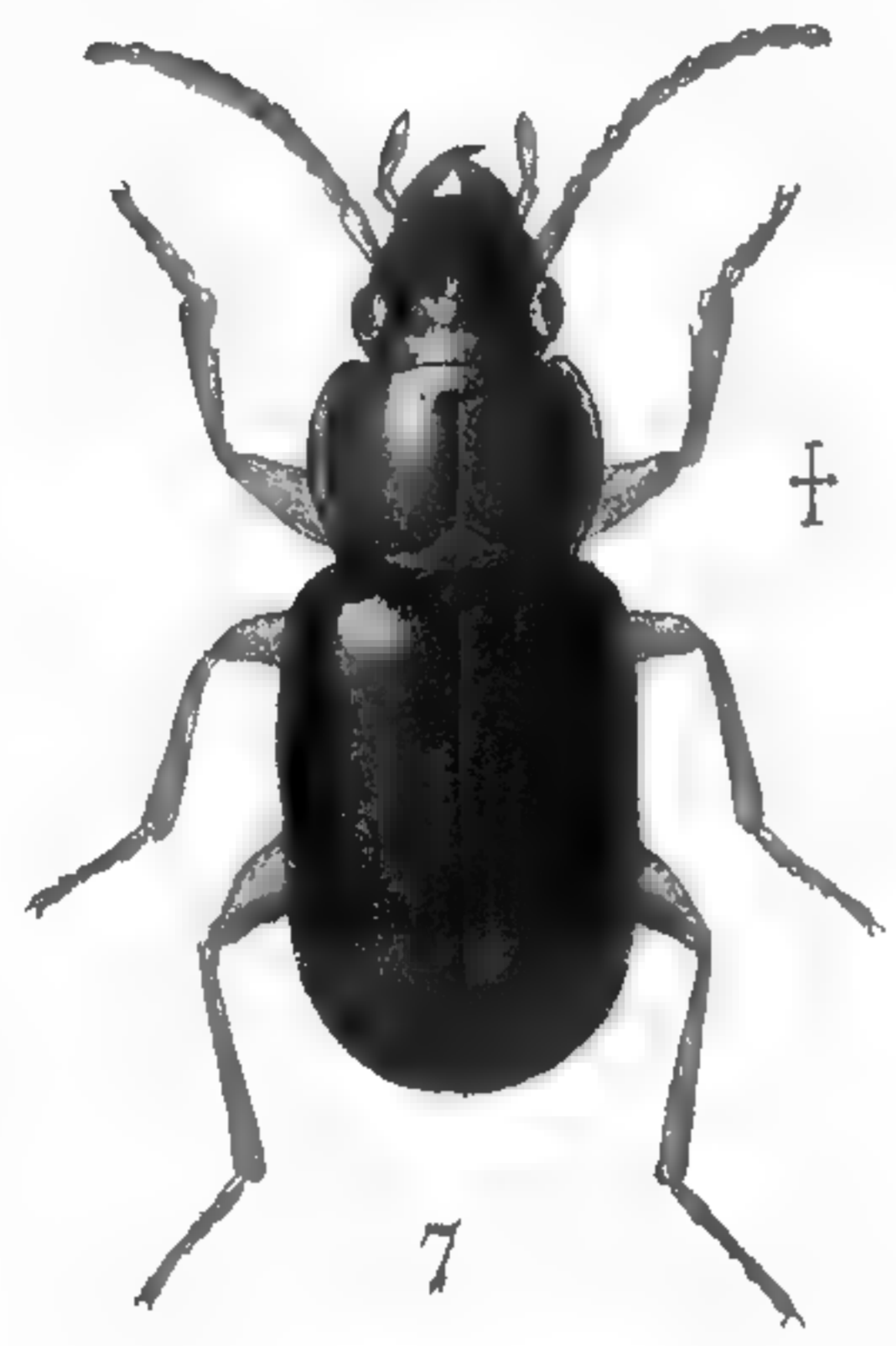
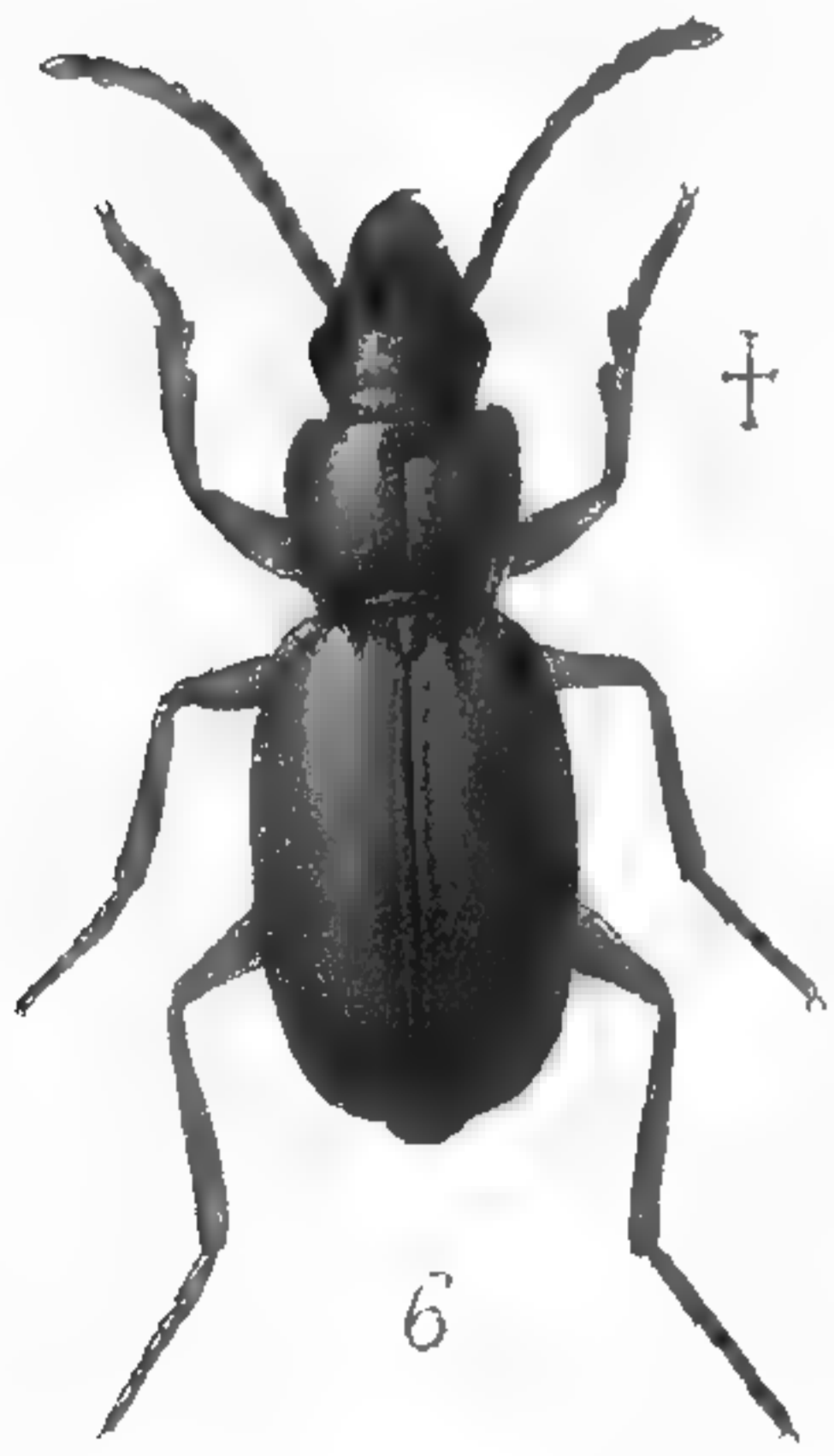
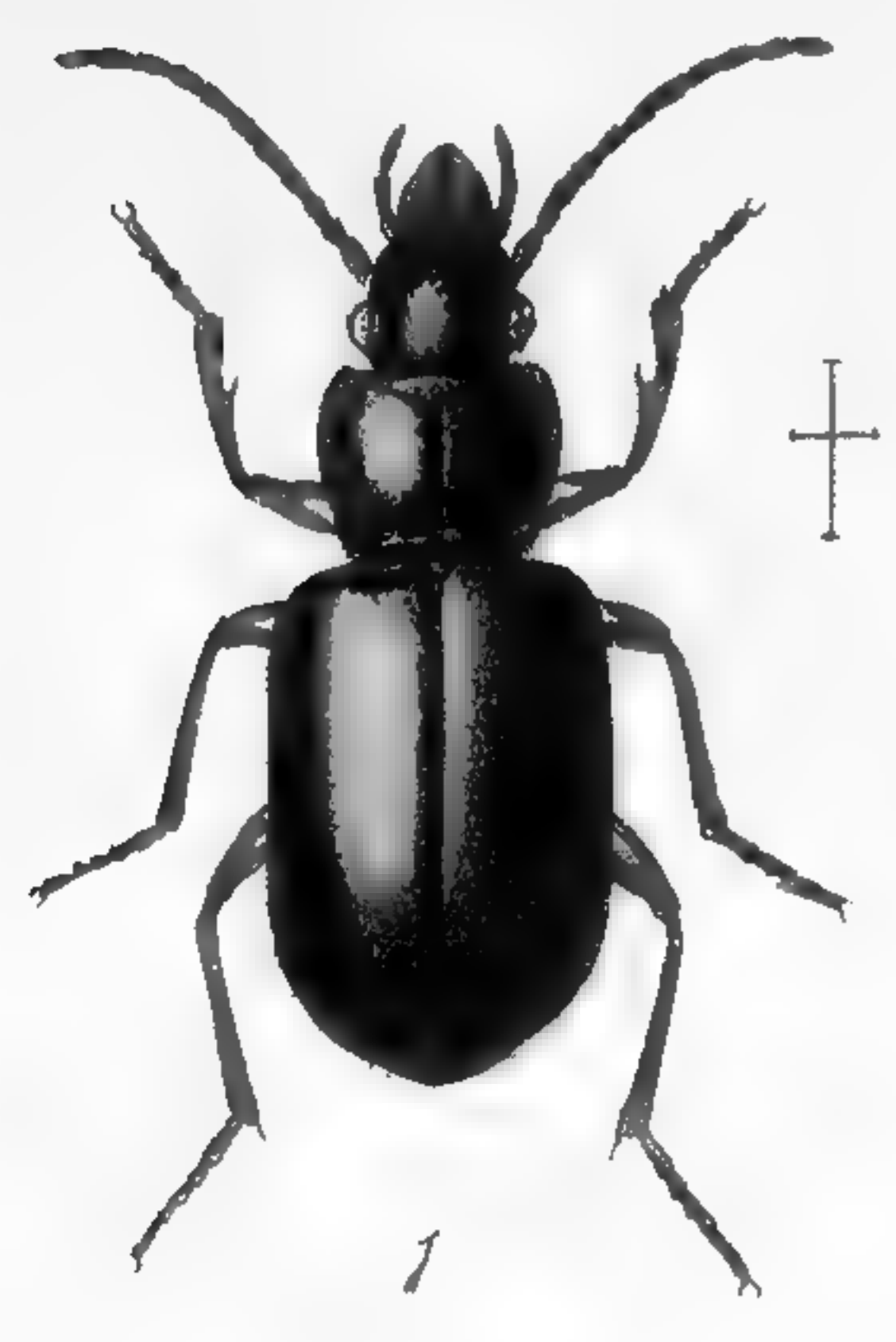
9 COLPODES FERRERI.
 10 " CHAMPIONI.
 11 " CHIRIQUINUS.
 12 " APHÆDRUS.
 13 " LYROPHORUS.
 14 " AGILIS.
 15 " SPINIFER.
 16 " FEMORALIS.
 17 " LACTIPES.

18 COLPODES LAMPROTUS.
 19 " MELANOCNEMIS.
 20 " IGNICAUDA.
 21 " LEBIOIDES.
 22 " HEMICYCLICUS.
 23 " DYSCHIRIOIDES.
 24 ONYPTERYGIA QUADRISPINOSA.
 25 " LONGISPINIS.

W. Purkiss lith.

Hanhart imp.
 300.





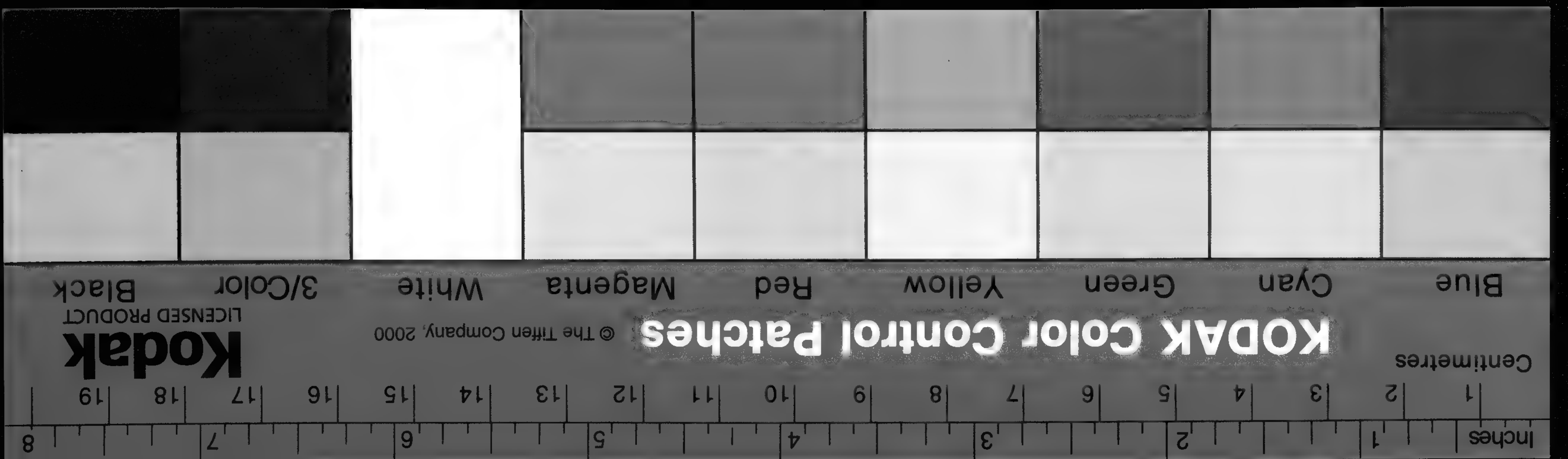
1 DIPLOHARPUS PERPOLITUS
 2 MIZOTRECHUS NOVEMSTRIATUS.
 3 TRECHUS COARCTATUS.
 4 PERIGONA LÆVIGATA.
 5 ANILLUS INTEGRIPENNIS.
 6 MIOPTACHYS TRECHOÏDES.
 7 TACHYTA CUCUJOÏDES.
 8 XYSTOSOMUS BELTI.

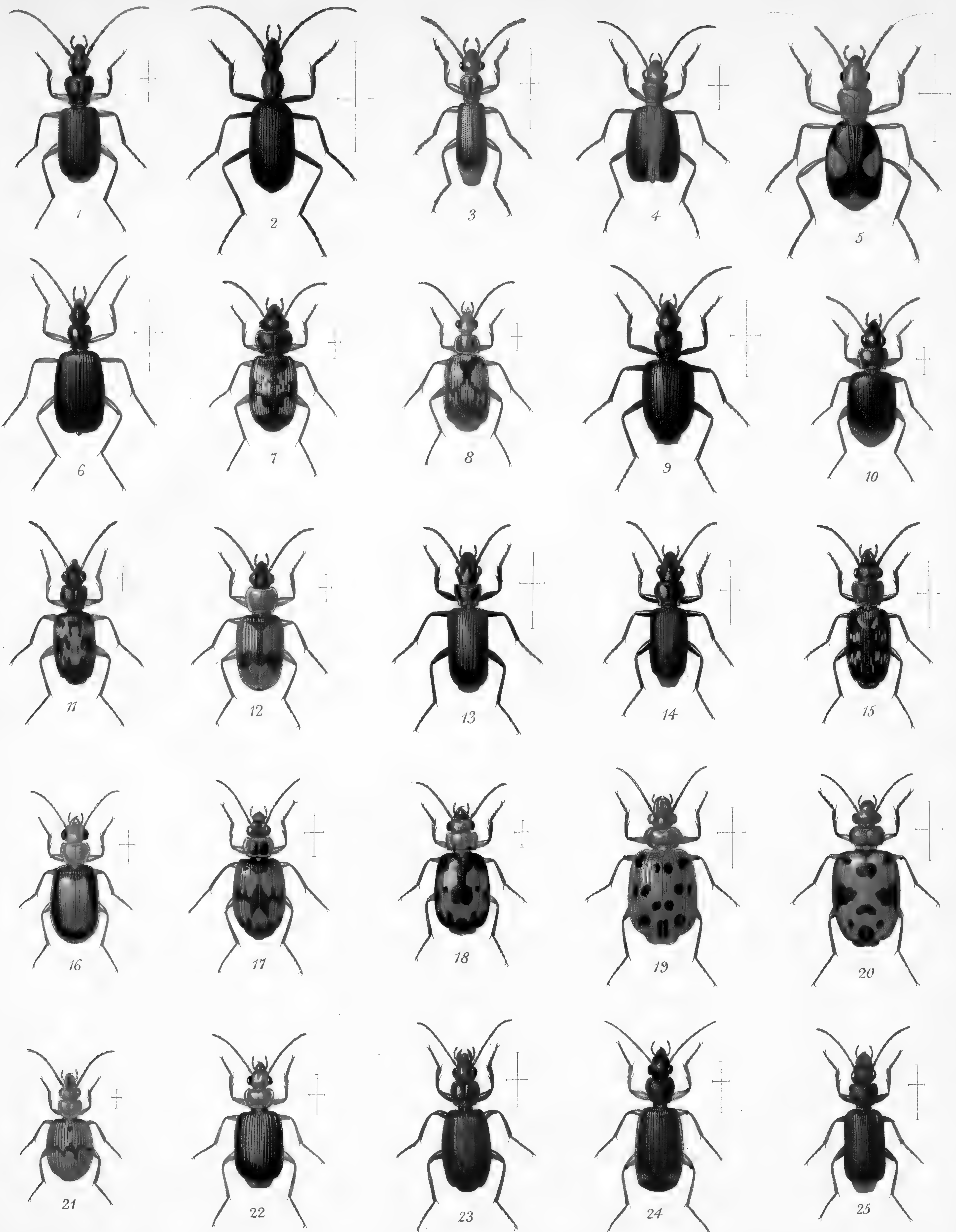
9 PERICOMPSUS LONGULUS.
 10 TACHYS PERICALIS.
 11 " DIPLOHARPINUS.
 12 BEMBIDIUM SPHÆRODERUM.
 13 " MEXICANUM.
 14 LACHNOPHORUS HUMERALIS
 15 EGA SALLÆI.
 16 LACHNOPHORUS SEMIRUFUS
 17 " SCULPTIFRONS.

18 LEPTOTRACHELUS PUNCTICOLLIS.
 19 CASNONIA MARGINESTRIATA.
 20 " TRANSPARENTIS.
 21 CALOPHÆNA LIGATA.
 22 " CRUCIATA
 23 GALERITA NIGRA var. c.
 24 DIAPHORUS HÖGEI
 25 CASNONIA TUBULIFERA.

F. Gressitt lith.

Hanhar. imp. 307

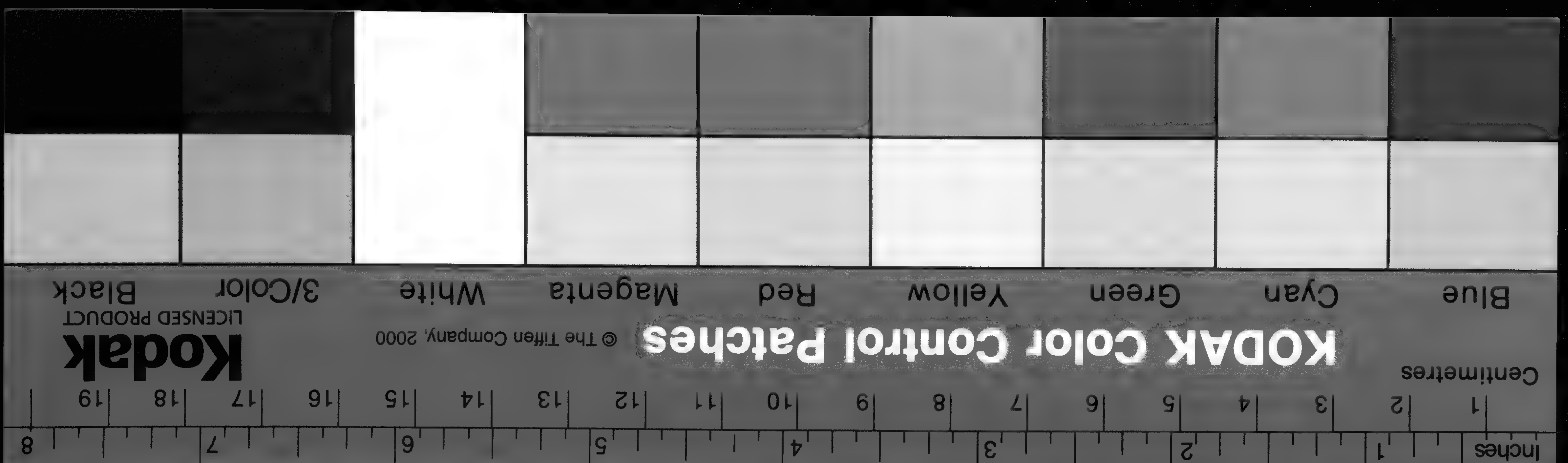


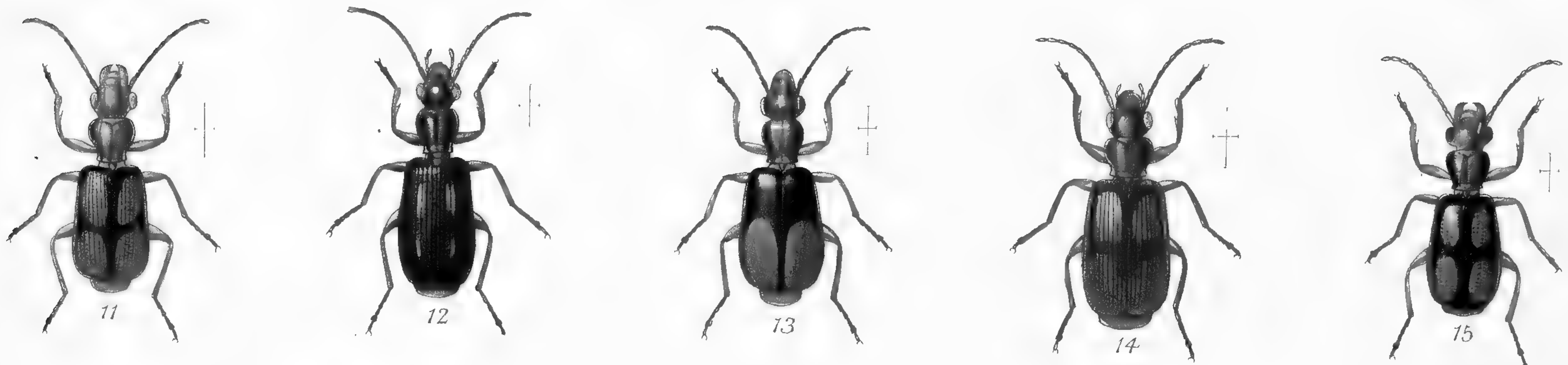
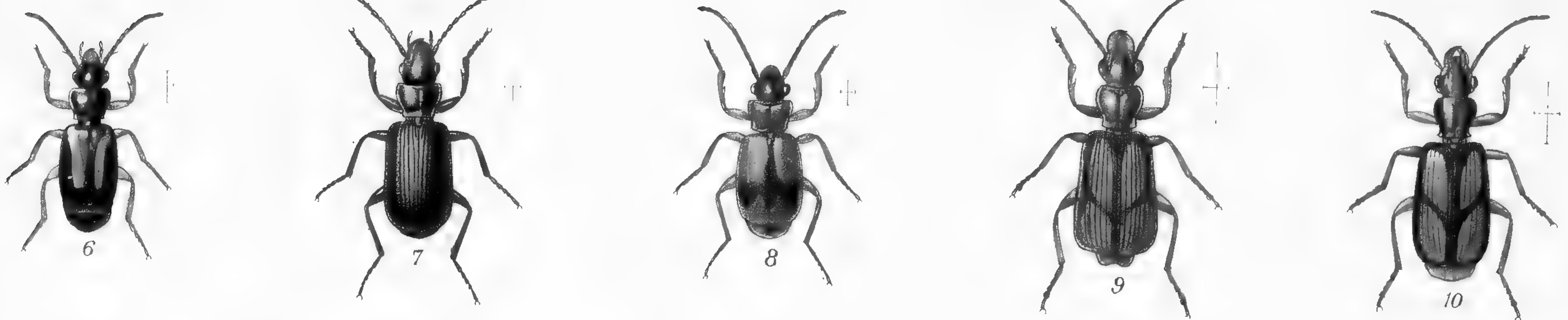


1 ANCISTROGLOSSUS DIMIDIATICORNIS.	9 STENOGNATHUS QUADRICOLLIS.	18 COPTODERA PÆCILA.
2 GALERITA FORRERI.	10 OCHROPISUS CAUDALIS.	19 EURYCOLEUS BELTI.
3 HELLUOMORPHA LONGICOLLIS.	11 PHLÆOXENA MEGALOPS.	20 " ORNATUS.
4 BRACHINUS CINCTIPENNIS.	12 " HÖGEI.	21 STENOGLOSSA LINEATA.
5 PHEROPSOPHUS BIPLAGIATUS.	13 CATASCOPIUS GUATEMALENUS.	22 LELIS INSCULPTA.
6 BRACHINUS SALLÆI.	14 " ANGULICOLLIS.	23 PINACODERA CHALCEA.
7 TETRAGONODERUS PÆCILUS.	15 COPTODERA ELONGATA.	24 APENES PALLIDIPIES.
8 NEMOTARSUS RHOMBIFER.	16 " FLAVODISCA.	25 " OBSCURA.
	17 " CUPREOTINCTA.	

W. Purkiss lith.

Hanhart imp 323.



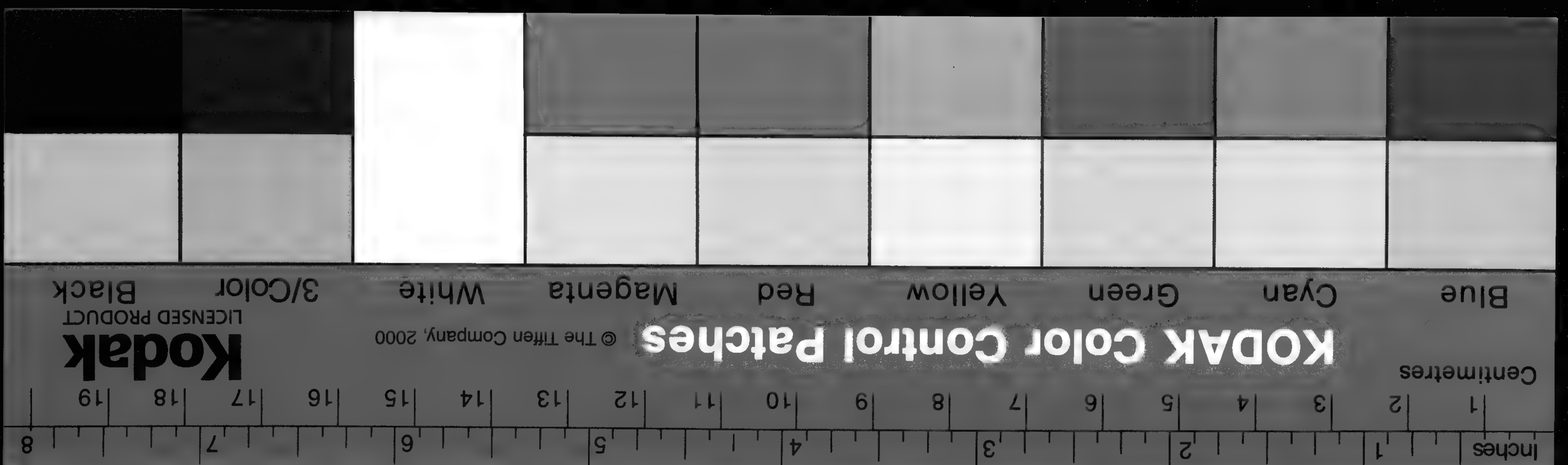


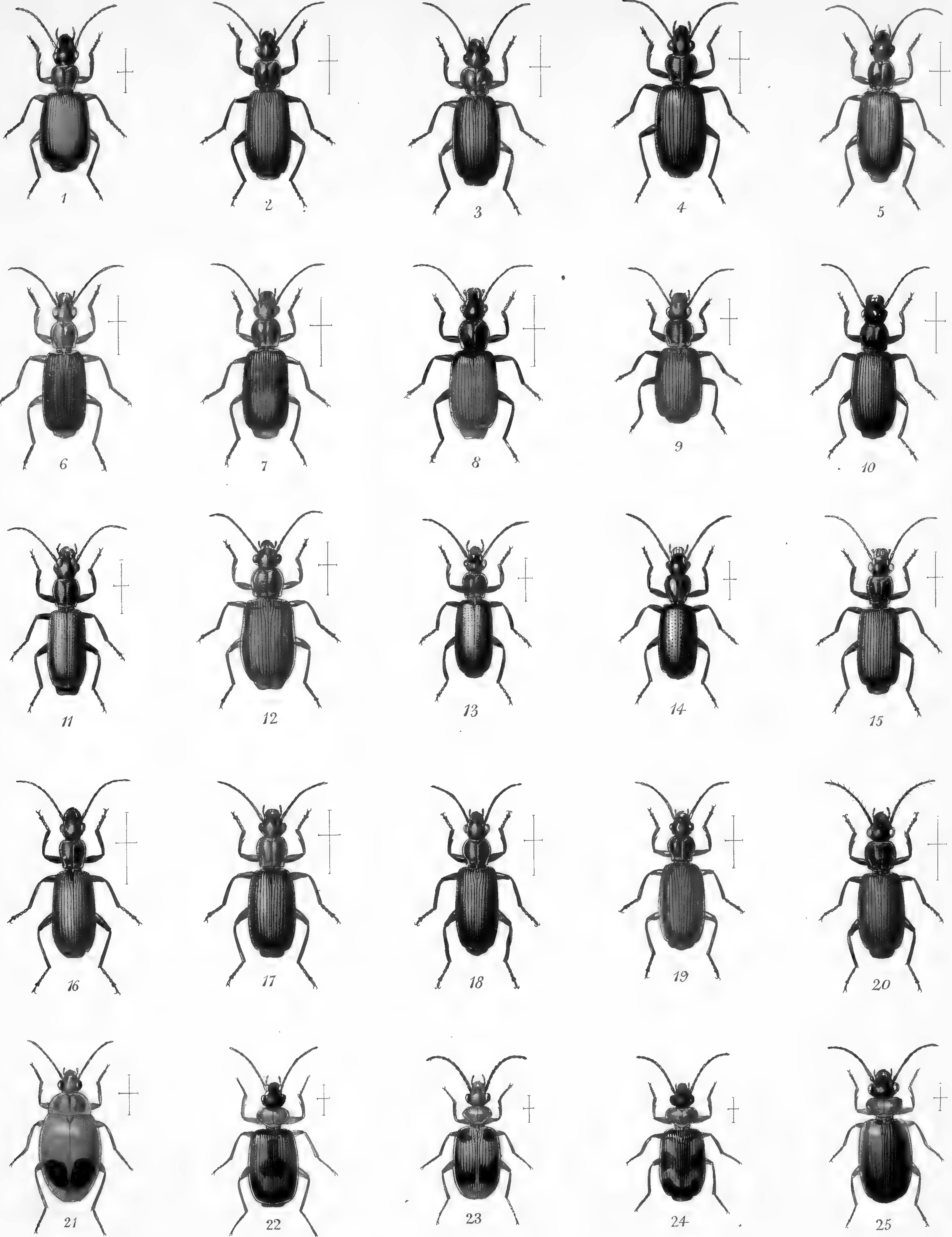
1 PINACODERA CRIBRATA.
 2 APENES PERYPHOIDES.
 3 PINACODERA AMBLYGONA.
 4 APENES CIRCUMCINCTA.
 5 DROMIUS GUATEMALENUS.
 6 AXINOPALPUS MEXICANUS.
 7 APRISTUS LONGULUS.
 8 AXINOPALPUS JUCUNDUS.

9 EUPROCTUS SUBDELETUS.
 10 " FENESTRELLUS.
 11 " QUADRINUS.
 12 " ABJECTUS.
 13 " DELICIOSUS.
 14 " SIGILLATUS.
 15 " ORNATELLUS.
 16 MENIDIUS CIRCUMSEPTUS.

17 MENIDIUS INCULTUS.
 18 " FORMOSUS.
 19 ONOTA ANGULICOLLIS.
 20 CRYPTOBATUS CHONTALENSIS.
 21 ASPASIOLE LEMOIDES.
 22 MICRAGRA AENEAE.
 23 HYBOPTERA TUBERCULATA.
 24 OTOGLOSSA MARGINELLA.

Hanhart imp. 325.





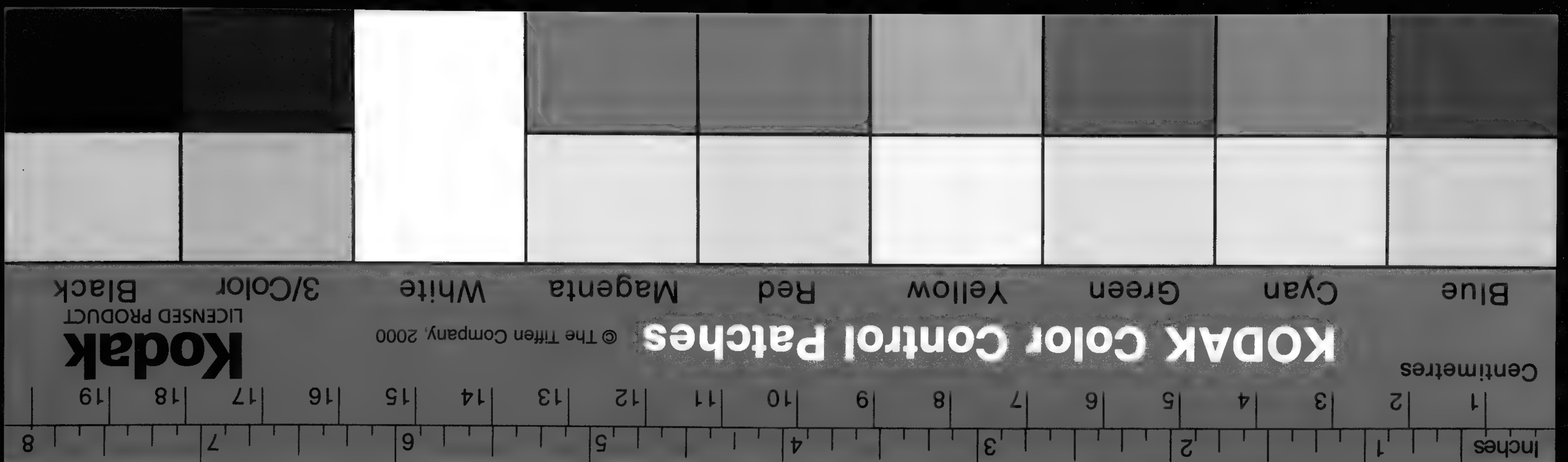
1 PHILOPHEUGA BRACHINOIDES.
 2 CALLEIDA LAMPRA.
 3 " SERICINITENS.
 4 " AURESCENS.
 5 " TROPICALIS.
 6 " AUREOLA.
 7 " PULCHERRIMA.
 8 " CHAMPIONI.

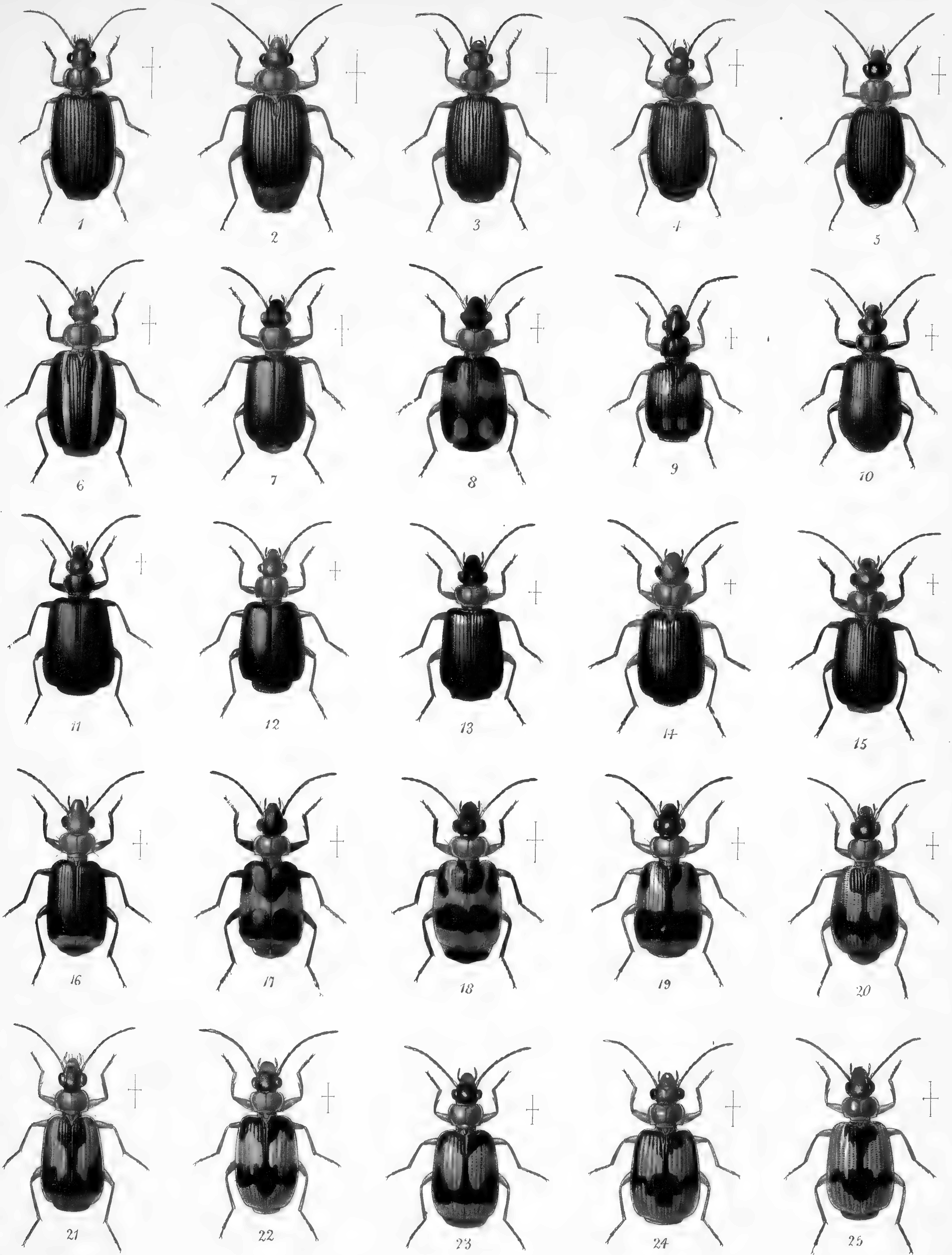
9 CALLEIDA SEMICINCTA.
 10 " METALLESCENS.
 11 " BELLA.
 12 " CIRCUMCINCTA.
 13 " TETRAPORA.
 14 " VARIOLOSA.
 15 " JANSONI.
 16 " REGINA.
 17 " CHRYSSEIS.

18 CALLEIDA ONYPTERYGOIDES.
 19 " FLOHRI.
 20 " SUMPTUOSA.
 21 GALLERUCIDIA CHAMPIONI.
 22 PENTAGONICA GONOSTIGMA.
 23 " HOMOSTIGMA.
 24 " BIFASCIATA.
 25 " PICTICORNIS.

W.Farkiss lith.

Hanhart imp. 326





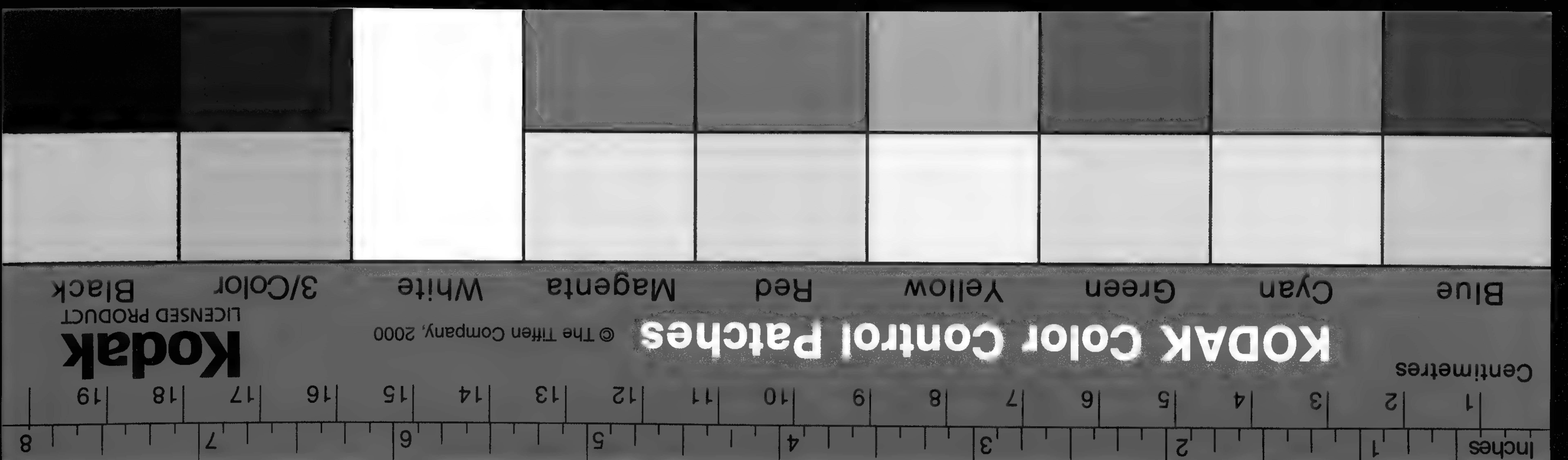
1 LOXOPEZA HÖGEI.
 2 " URANIA.
 3 " CYANE.
 4 " TRANSLUCENS.
 5 " EXARATA.
 6 " EBURATA.
 7 LEBIA QUADRICOLOR.
 8 " BRACHINOIDES.

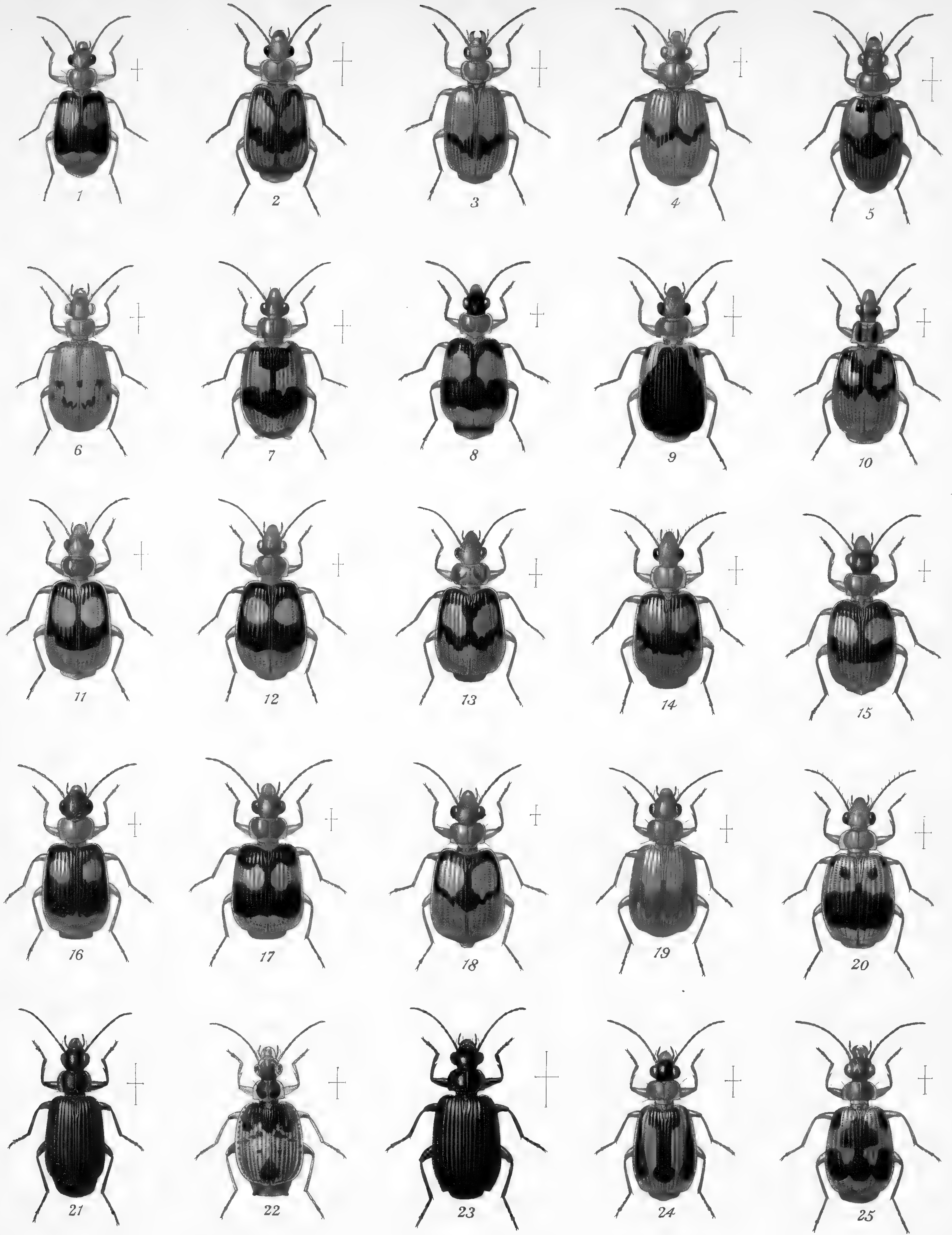
9 LEBIA CHARILLA.
 10 " IGNITA.
 11 " CÆLINA.
 12 " GONIESSA.
 13 " CROCEICOLLIS.
 14 " FIMBRIOLATA.
 15 " RETUSA.
 16 " PŒCILURA.
 17 " CALLIZONA.

18 LEBIA CHARINA.
 19 " CLIO.
 20 " ANCHORA.
 21 " SCALPTA.
 22 " NEANTHE.
 23 " CALLIOPE.
 24 " RHODOPE.
 25 " RUFILIA.

W. Purkiss lith.

Hanhart imp. 338





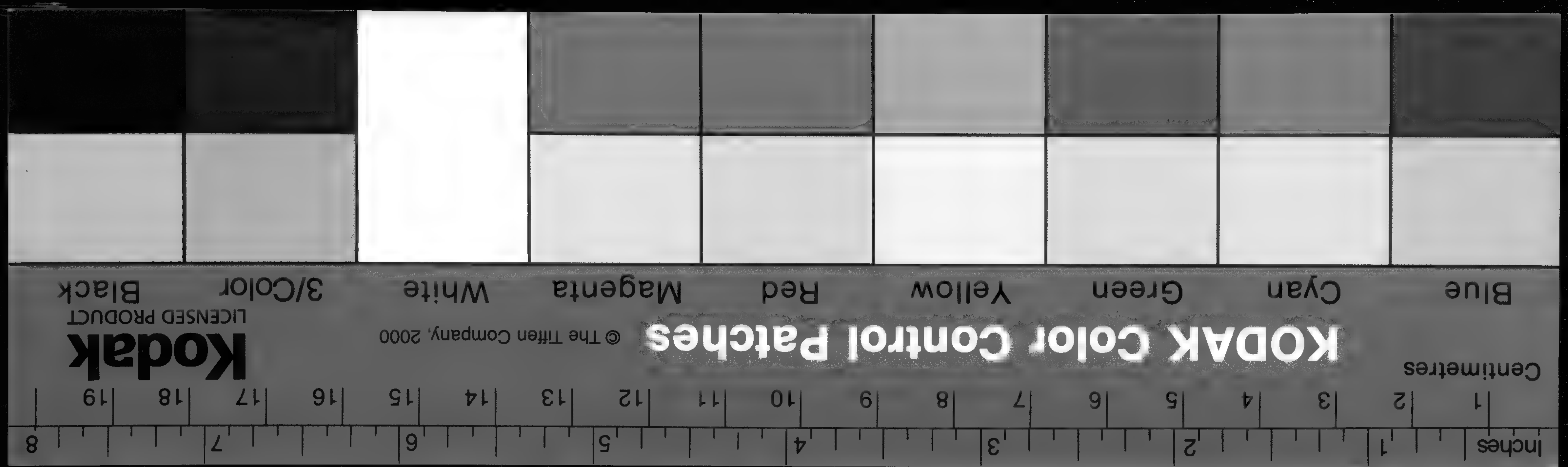
1 LEBIA DUILLIA.
 2 " SOROR.
 3 " CENTROMACULATA.
 4 " ARIETIS.
 5 " CHELOSTIGMA.
 6 " CHLOROTICA.
 7 " LATIFASCIATA.
 8 " NIGRICEPS.

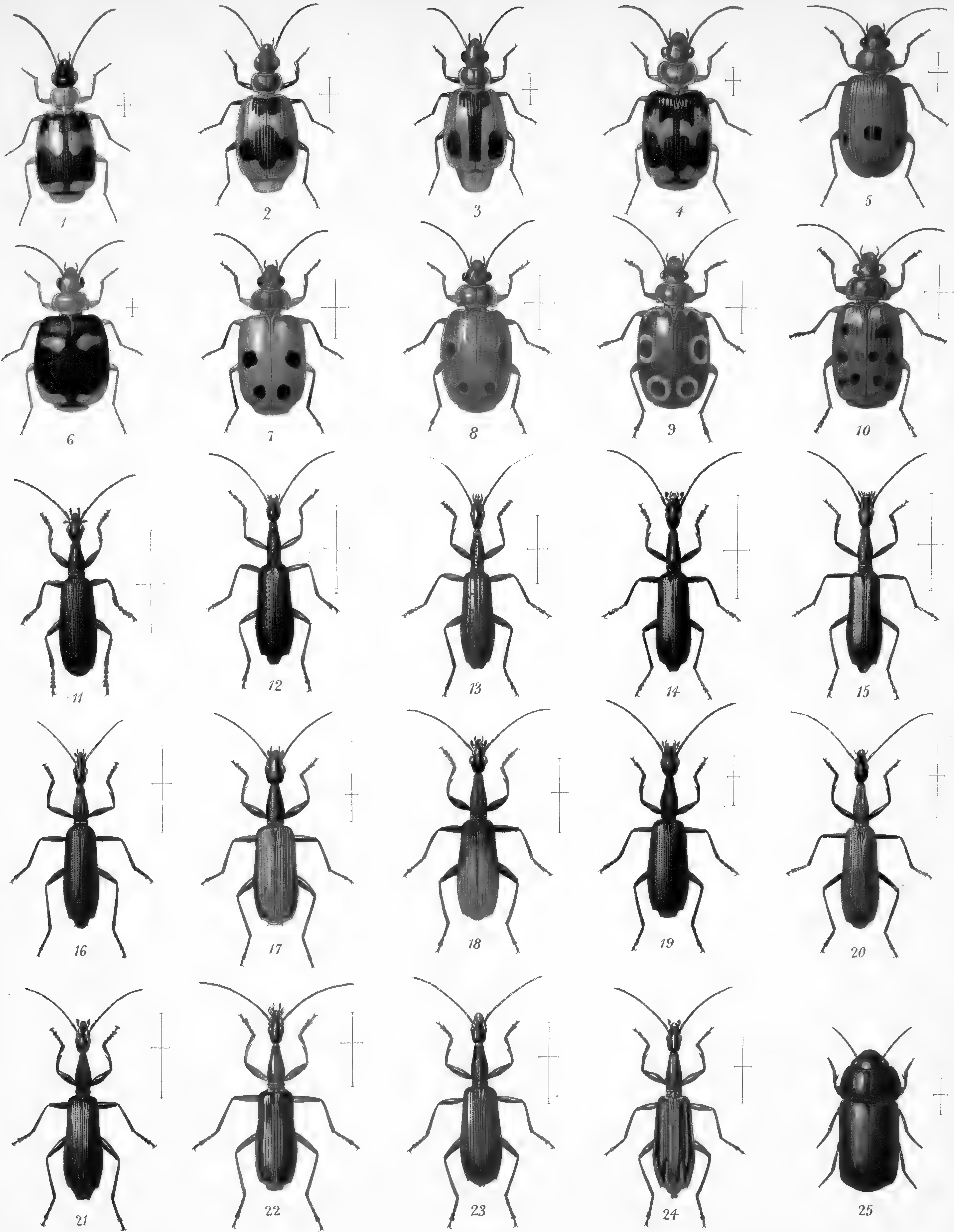
9 LEBIA XANTHOPLEURA.
 10 " BIVITICOLLIS.
 11 " CHIRIQUENSIS.
 12 " BIFORIS.
 13 " BIANNULATA.
 14 " TOLTECA.
 15 " MAYA.
 16 " INCONSTANS.
 17 " CORCULA.

18 LEBIA CORDELIA.
 19 " ZETA.
 20 " DISCOPICTA, var.
 21 " SINANJA.
 22 " MIRABILIS.
 23 " MELANTHO.
 24 " RUGATIFRONS.
 25 " VICINA.

W. Purkiss lith.

Hanhart imp. 337.





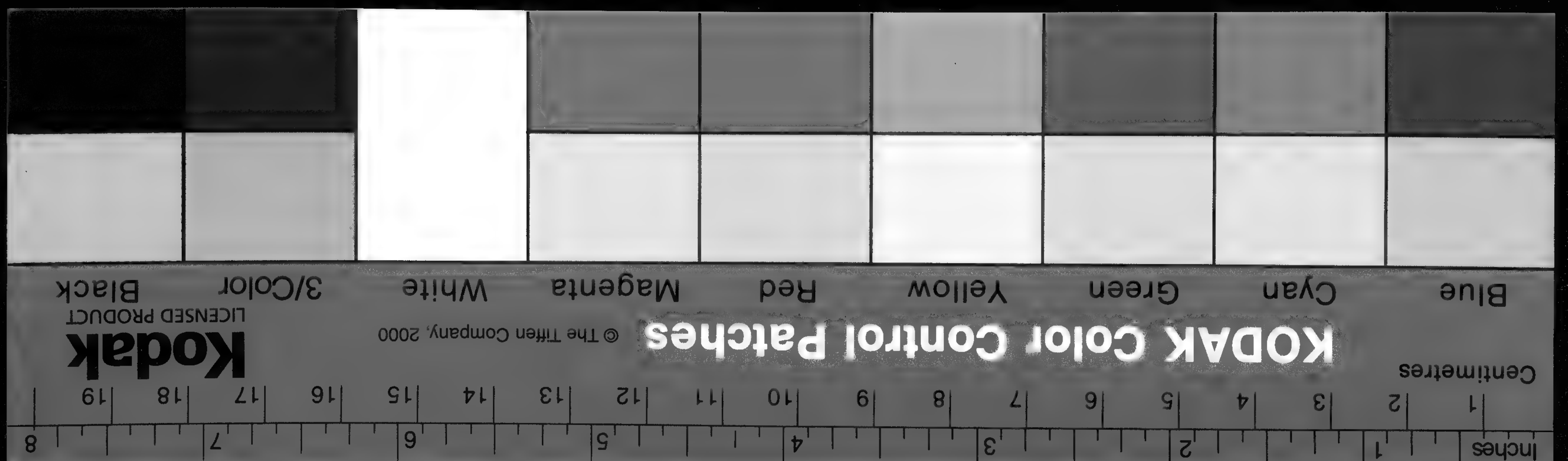
1 *LEBIA CALLIPARIS*
 2 " *HISTRIONICA*
 3 " *HISTRIONICA* *Var C.*
 4 " *COPTODERINA*
 5 " *MESOSTIGMA*
 6 " *HILARIS*
 7 *LIA QUADRINOTATA*
 8 " *OCELLIGERA*

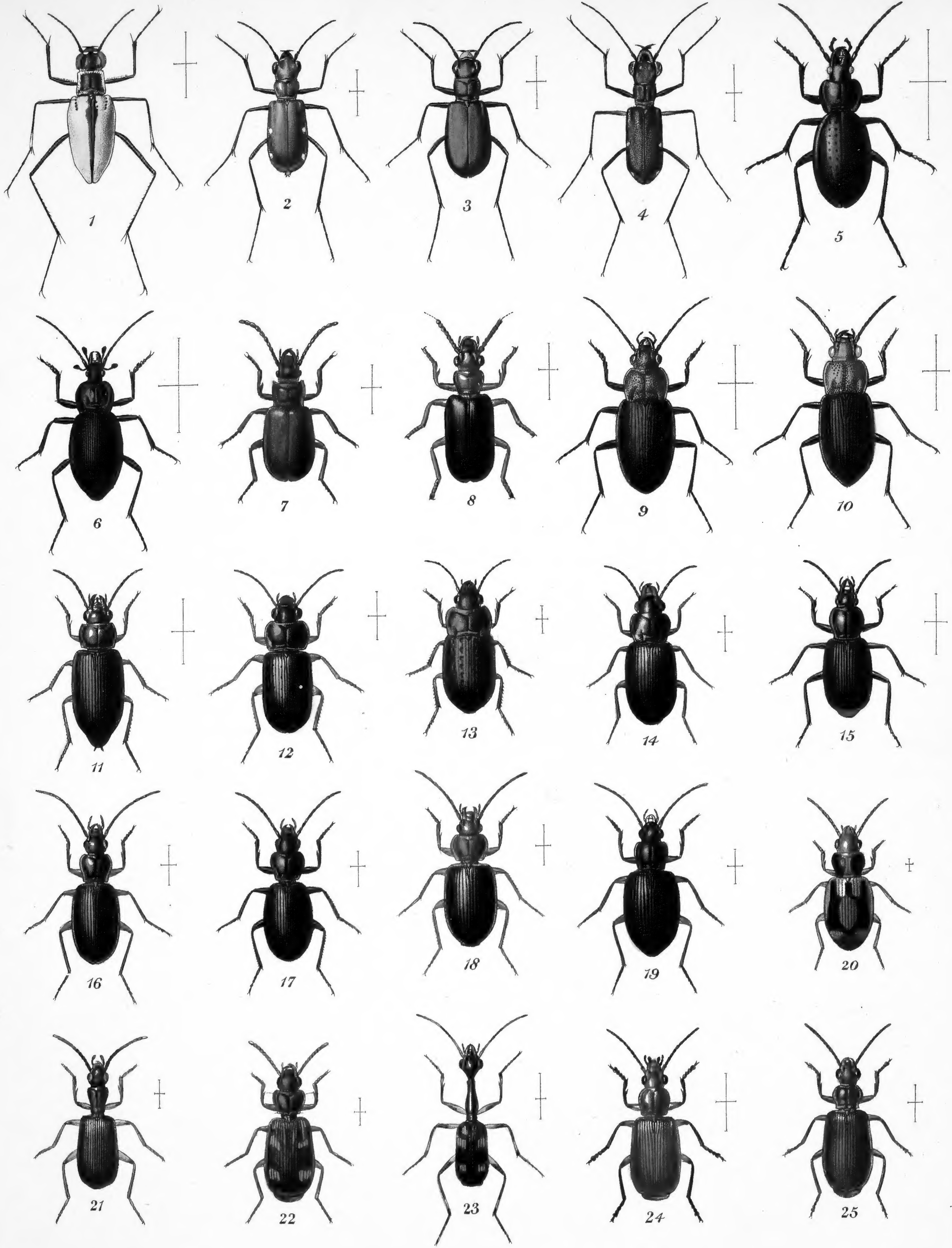
9 *LIA QUADRIANNULATA.*
 10 " *MELANOCREPIS.*
 11 *AGRA EURYPELMA.*
 12 " *CASTANEIPES.*
 13 " *ÆNEOLA.*
 14 " *OBLONGOPUNCTATA*
 15 " *RESPLENDENS.*
 16 " *REGULARIS.*
 17 " *FADA.*

18 *AGRA SEMIFULVA.*
 19 " *MULTISETOSA.*
 20 " *ELAINA.*
 21 " *FURPUREA.*
 22 " *CHRYSOPTERYX.*
 23 " *DIMIDIATA.*
 24 " *VIRGATA.*
 25 *PSEUDOMORPHA PILATEI.*

W. Purkiss lith.

Hanhart imp
 341.

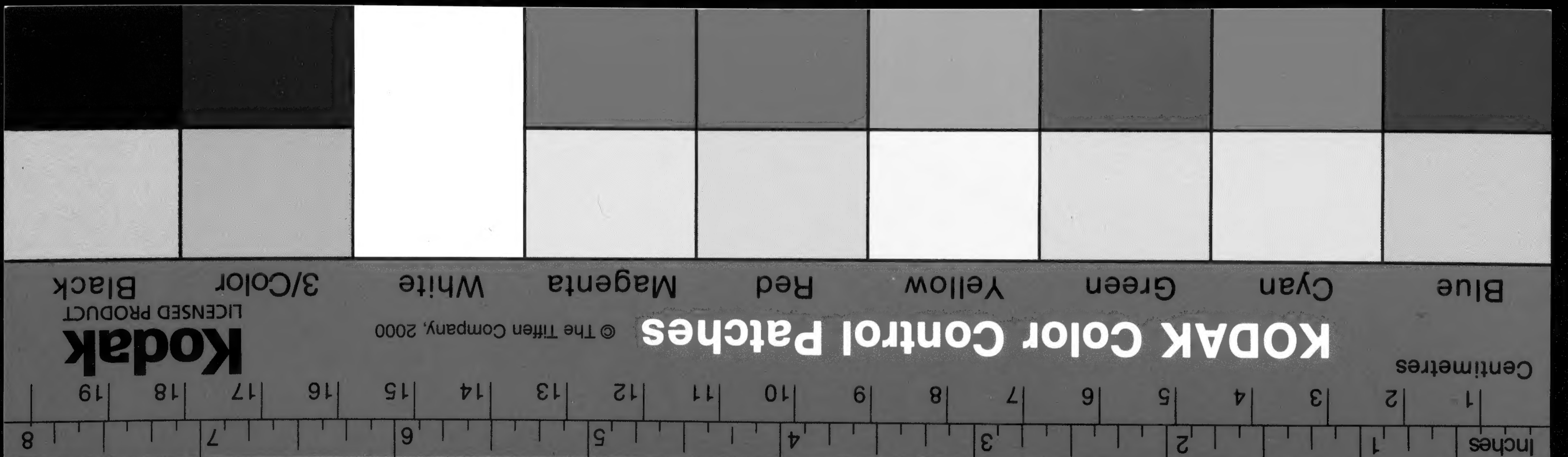




- | | | |
|---------------------------|---------------------------|-------------------------------|
| 1 CICINDELA CASTISSIMA. | 9 CHLÆNIUS PLANULATUS. | 18 COLPODES RUFULUS. |
| 2 " CHRYSIPPE. | 10 " FORRERI. | 19 GLYPTOLENUS LATITARSIS. |
| 3 " EUTHALES. | 11 NOTIOBIA CHIRIQUENSIS. | 20 PERICOMPSUS HISTRIONELLUS. |
| 4 ODONTOCHEILA EXILIS. | 12 SELENOPHORUS DIVES. | 21 DIAPHORUS ELEGANS. |
| 5 CARABUS FORRERI. | 13 " MULTIPORUS. | 22 APENES CALLIGRAMMA. |
| 6 CYCHRUS MEXICANUS. | 14 LOXANDRUS SCULPTILIS. | 23 CASNONIA LINEOLATA. |
| 7 PACHYTELES LONGICORNIS. | 15 ITHYTOLUS ANOMALUS. | 24 CALLEIDA TINCTIPES. |
| 8 " INFLATUS. | 16 COLPODES EUDEMUS. | 25 ONOTA FULVELLA. |
| | 17 " MINIMUS. | |

W. Purkiss lith.

Hanhart imp. 361.



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P. 1603 (15)

